Nova Scotia

Department of
Mines and Energy

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OFR 91-002

OPEN FILE REPORT ON SELECTED MINERAL OCCURRENCES OF CAPE BRETON ISLAND

NTS MAP SHEETS 11F\14,11K\01,11K\02,11K\06,11K\07

NOVA SCOTIA DEPARTMENT OF MINES AND ENERGY

BY GARTH DEMONT

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91-02935/

INTRODUCTION

The occurrences described here were selected during the literature research as areas which had the best mineral potential of the occurrences researched, or were representative occurrences of certain geological environments. Geochemical results have enhanced the potential for some of the occurrences examined.

The data released in this OFR is contained in the Metallic Mineral Occurrence Database. The information provided at this time is of a preliminary nature. Thin section work and further analyses will be completed this winter to enhance the information. The rocks are generally complex in the areas examined . The description of the samples is given as a simplified format until the thin section examinations can be completed. It is difficult to identify the rock types in hand specimens so the simplified version is used to prevent creating bias or error in the identification. The descriptions will be updated after the thin section work is completed.

Samples of the rocks should be available for viewing at the NSDME offices in Halifax and Stellarton by the end of February, 1991. All of the mineral occurrences field checked this summer have not been included in this report. The balance of the occurrences could not be located or were of minor significance. These occurrences will be updated in the Metallic Mineral Occurrence database and a new MOD card will be generated and placed in the NSDME offices in Halifax and Stellarton.

POINTS OF INTEREST

F14-03 : - A quartzite unit in the main trench contained anomalous values of W. This is significant as the previous literature had only reported anomalous values in the marble or dolomite units.
- Anomalous values for gold were found in the quartzite and the marble or dolomite samples. This area has not been assessed for gold potential.
- Porphry dykes were noted in drilling in this area. The dykes contained disseminated chalcopyrite. These dykes were apparently never analyzed for gold.

F14-05 : - The rocks in this area are extensively deformed.
- A till sampling program (AR87-131) outlined a strong Au anomaly which coincides with the outline of the E-W porphry intrusive in this area. The intrusive probably follows a fault zone which has offset Gobhaus brook. The gold till anomaly has never been explained.
- The old adit is reported to roughly parallel the contact of the intrusive and the George river group rocks.
- The rocks in the area of the adit contain significant amounts of pyrite and minor arsenopyrite.
- The gold values could not be duplicated.

F14-18 : - This graphite occurrence contains significant amounts of pyrite.
- The graphite zones are also anomalous in mercury. This may be an indication of base metals along strike.
-The pyrite nodules are anomalous in gold.
- A stream sediment geochemical anomaly was indicated in this brook. (NSDME OFR 89-007)
- The literature does not show any previous examination of this occurrence for anything but graphite.

K01-03 :- A grab sample of this typical Grantmire mineralization gave anomalous Cu,Pb and Zn.
- The sample was also anomalous in Au and Ag.

K01-31 : - The two samples taken from this occurrence were slightly anomalous in Au.
- The assessment file (07-C-15(01)) indicates an extensive area of pyrite mineralization along an intrusive sediment contact.
- There has been no further work recorded on this occurrence. The anomalous gold was not recorded previous to the 1990 NSDME field check.

K02-03 : - The literature records significant Au and Ag values from this occurrence.

K02-03 :-The values could not be duplicated as no vein material was left on the dump. However, the geology matches the literature descriptions and a shaft and adit were located in the described location.

- The host rocks are also mineralized with chalcopyrite and specularite.
- The significantly anomalous mineralization noted at Burnt Point (K02-04) (AU+AG), also gives some credence to this occurrence as the literature description of the Burnt Point occurrence was confirmed.
- An anticlinal structure is visible on infrared aerial photos, south of the occurrence.
- There has been little exploration work recorded on this occurrence.

K02-04 :- Significant Au, Ag and Pb values were indicated in the analyses of samples collected in the 1990 NSDME field check. (NOTE !!! this is a one sample analyses. The sample was analyzed four times with good results . A second sample will be sent for confirmation in the near future.)

- The extent of the mineralization is not known as no exploration work has been recorded on this occurrence and it is difficult to sample as it is exposed on a cliff face.
- Preliminary examination of the host rock samples indicate that the mineralization may be related to a porphry tuff unit. (Note the samples are very fine grained. Thin sections will be cut for confirmation.)

K02-06 :- This occurrence is significant in that it visually appears to be similar to the Price Point area.

K02-12 :- Significant Au values were recorded in this area in the literature. The values could not be confirmed.

K02-13 : - This is a typical Windsor limestone occurrence. Of little apparent significance.

K02-08 :- This area deserves more attention.

- The magnetic data on this area can be used in conjunction with soil geochemical results to highlight areas which were worked in the past and to highlight areas which require further examination.
- The magnetic data indicates several faults in this area.
- The magnetic anomalies themselves have never been explained even though they are clearly linked to the geochemical anomalies.
- The nickeliferous pyrrhotite mineralization may be linked to the source of the mag anomalies. The gold mineralization has also been indicated to be derived from

a mafic source.
- Platinum has been recorded in the literature. If the mineralization is linked to a mafic source, there may be some value in assessing the area for platinum. (Note Al. Sangster of the GSC noted ultramafic rocks on the dump (pers comm.))

K02-14 :- This occurrence is a typical Windsor-Horton occurrence with the exception of its structural complexity.
- Analyses of samples of the Grantmire? from this occurrence, which showed heavy malachite stain, were significantly anomalous in Ag and slightly anomalous in Au. The faulting and folding in the area could develop a structural trap for mineralization.

K06-08 :- Samples of the quartz from the dump gave significant values in Au and Ag in samples collected from the 1990 NSDME field check.
- Mapping of the area by V.A French gave a new interpretation of the geology of this area. In French's mapping, the occurrence is shown to be at a faulted contact between sedimentary and intrusive rocks. If this is the case it could explain the lack of quartz in other parts of the area (the reason given by Kidd Creek for not giving this occurrence further assessment). If the mineralization is related to the fault, it deserves a further assessment.
-There has been little assessment work done on this occurrence.

K07-01 :- This area is significant when placed in a regional context. (i.e. when examined with other occurrences on the St.Anns peninsula)
- One of the veins gave significant values for several elements. It was very anomalous in Sb. This probably affected the peaks for other elements. This is the first time that Sb has been indicated in this area. (A second sample will be sent for analyses in the near future. Caution should be used in placing any value on the first analyses)

K07-03 :- The gold analyses could not be confirmed. The location given in the literature also appears to be in error.

K07-18 :- The mineralization at this occurrence is visually impressive.
- The samples contained significant Cu,Pb,Zn and anomalous Ag and Au.
- A Au stream geochemical anomaly is noted in the literature to occur on the west branch of Elders Brook, above the occurrence. This may be indicative of more mineralization.
- The mineralization is similar to that seen at Price Point.

K02-18 :- The recorded work on this occurrence indicates that -it has not been properly assessed.
- Two other quartz vein systems were also noted along Elders Brook. They are in granitic rock, but have the same orientation as the main showing. They were also anomalous in Au.

K07-30 : - The Au values were confirmed by the 1990 NSDME sampling.
- This occurrence has not been properly assessed. This may be because the brook does not actually enter the river and thus may have been overlooked.
- There appears to be two distinct veining systems. One is a carbonate -quartz vein and the other a quartz vein. The Au seems to be hosted by the quartz-carbonate vein. The shaft was sunk near the junction of the two veins. Both veins appear to be related to shearing of the host rocks.
- This occurrence is definately worthy of further assessment. A second mineralized shear zone is also indicated in the literature to occur on the brook east of this occurrence. This reported occurence has not been confirmed.

K07-33 :- This occurrence has seen the most exploration of the occurrences on the St.Anns peninsula.
- The massive pyrite vein was not expected as the literature had focused on porphry copper mineralization.
- The sample was slightly anomalous in Au.
-This occurrence is significant if examined in relation to the other occurrences on the St.Anns peninsula.

K07-35 :- This is a new occurrence which contains significant amounts of pyrite in altered and sheared granitic rocks.
- The occurrence is very similar to the Murray Brook occurrence and two vein systems noted along Elders Brook.
- All of the samples analyzed were weak to moderately anomalous in Au.
-This occurrence is also significant when placed in a regional context with other occurrences on the St. Anns peninsula.

OCCURRENCE NAME : WHYCOCOMAGH

LOCATION

COUNTY : INVERNESS **CLAIM MAP :**11F\14D **TRACT :** 102 **CLAIM :** A

NORTHING : 5094400 **EASTING :** 646550 **ZONE :** 20

DESCRIPTIVE LOCATION : TAKE THE WHYCOCOMAGH MOUNTAIN ROAD OFF THE TRANS CANADA HIGHWAY AT WHYCOCOMAGH. PROCEED DOWN THIS ROAD FOR 4.0KM TO AN OLD ROAD ON THE WEST SIDE. THIS ROAD IS DRIVABLE FOR 400 METRES TO AN OLD CABIN. FROM THIS POINT YOU MUST WALK TO THE OCCURRENCE. (NOTE THE ROAD COULD BE REPAIRED WITHOUT MUCH WORK SO THAT YOU COULD DRIVE MOST OF THE WAY TO THE OCC.) THE ROAD TAKES A SHARP SWING TO THE SW AT 280 METRES, AFTER CROSSING A SMALL BROOK. TRAVEL ANOTHER 1170 METRES SW ALONG THE ROAD FROM THE BROOK. AT THIS POINT HEAD WEST FOR 115 METRES TO AN AREA OF OLD TRENCHES. THE LARGE TRENCH AND SHAFTS ARE LOCATED JUST NORTH OF THIS POINT.

SUMMARY DESCRIPTION

MINERALIZATION : CHALCOPYRITE, MAGNETITE, SCHEELITE, WOLFRAMITE, MOLYBDENITE AND PYRITE **COMMODITY :** W, CU AND FE

STRATIGRAPHIC UNIT : GEORGE RIVER GROUP **AGE :** PRECAMBRIAN

HOST ROCK : ALTERED LIMESTONE, SKARN AND PORPHRY

STATUS : AT LEAST ONE OLD SHAFT IS LOCATED IN THE AREA. NO DEVELOPMENT WORK HAS BEEN DONE SINCE THE EARLY 1900'S. ALL RECENT WORK HAS BEEN LIMITED TO SURFACE EXPLORATION AND DRILLING.

GEOLOGICAL ENVIRONMENT :

A SMALL INLIER OF PRECAMBRIAN GEORGE RIVER GROUP ROCKS HOSTS THE PROSPECT ON WHYCOCOMAGH MOUNTAIN (CHATTERJEE). THE ROCKS CONSIST OF QUARTZITE, LIMESTONE, PARAGNEISS, CHLORITE SCHIST, QUARTZ SERICITE SCHIST, SKARN AND MINOR VOLCANICS (CHATTERJEE).

HILL,J.R: " WITHIN CAPE BRETON ISLAND, CARBONATE BEARING METASEDIMENTARY ROCKS OF PRE-CARBONIFEROUS AGE HAVE HISTORICALLY BEEN CORRELATED WITH THE GEORGE RIVER GROUP. THE GROUP IS A LOOSELY DEFINED, LITHOSTRATIGRAPHIC UNIT COMPRISED OF INTERBEDDED CARBONATE AND CLASTIC METASEDIMENTARY ROCKS AND MINOR METAVOLCANIC ROCKS OF VARIABLE METAMORPHIC GRADE AND OF PROBABLE LATE PRECAMBRIAN AGE. THE CARBONATE UNITS RANGE IN COMPOSITION FROM RELATIVELY PURE CRYSTALLINE LIMESTONE AND DOLOSTONE OF VERY LOW METAMORPHIC GRADE. AS IN THE CRAIGNISH HILLS AND NORTH MOUNTAIN AREAS, TO MORE HIGHLY METAMORPHOSED, CALCAREOUS, DOLOMITIC OR SILICEOUS MARBLE FOUND WITHIN THE BOISDALE HILLS SEQUENCE AND IN THE CAPE DAUPHIN-KELLEYS COVE BELT. ASSOCIATED METASEDIMENTARY ROCKS INCLUDE QUARTZITE, IMPURE QUARTZITE AND FELDSPATHIC SANDSTONE WHICH STRATIGRAPHICALLLY BRACKET CARBONATE MEMBERS AND , AGAIN ARE OF VARIABLE METAMORPHIC GRADE. ARGILLACEOUS AND VOLCANIC ROCKS ARE OF MORE LIMITED DISTRIBUTION."

THE GEORGE RIVER GROUP HAS BEEN INTRUDED BY A SMALL PLUG OF GRANITE PORPHRY. THE INTRUSIVE ROCKS HAVE BEEN DESCRIBED IN THESIS BY R.W.Y. CHOY AND V.A. FRENCH.

THE INTRUSIVE IS COMPOSED MAINLY OF GRANITE PORPHRY AND MINOR GRANODIORITE (CHOY). IT IS ELLIPTICAL IN SHAPE WITH ITS LONG AXIS TRENDING EAST WEST (CHOY).THE K\AR AGE OF 402+-20MA WAS OBTAINED FOR AMPHIBOLE OF THE GRANITE PORPHRY (CHOY). THE ROCKS ARE IN TURN INTRUDED BY PORPHRY DYKES OF GRANITE, QUARTZ MONZODIORITE AND QUARTZ DIORITE (CHOY). THE RELATIVE AGES OF THE VARIOUS DYKES ARE UNCERTAIN BUT THEIR CLOSE ASSOCIATION WITH THE GRANITE PORPHRY POINTS TO A SIMILAR SOURCE (CHOY). THERE IS ALSO A DEVELOPMENT OF ENDOSKARN OF UNCERTAIN EXTENT AT THE SOUTHERN MARGIN OF THE PLUTON.(CHOY)

THE GEORGE RIVER GROUP ROCKS AND THE INTRUSIVE ROCKS ARE OVERLAIN UNCONFORMABLY BY THE HORTON GROUP . THE HORTON GROUP CONSISTS OF CARBONIFEROUS SEDIMENTARY ROCKS OF CONTINENTAL ORIGIN.

REFERENCE DESCRIPTION :

THE PRINCIPAL SHOWING IS LOCATED IN A NARROW ZONE OF MAGNETITE BEARING LIMESTONE APPROXIMATELY 425 METRES LONG BY 61 METRES WIDE (AR13-J-59(01)). THE MINERALIZATION IS PRIMARILY HOSTED BY AN ALTERED SILICEOUS DOLOMITIC LIMESTONE (CHATTERJEE). THE MINERALIZATION IS CHARACTERIZED BY AN ALTERATION OF TALC AND ANTIGORITE (CHATTERJEE). THE SILICEOUS DOLOMITE SHOWS A ZONING OF 1 FRESH ROCK 2 TREMOLITE ACTINOLITE ALTERATION 3 MODERATELY ALTERED TREMOLITE ANTIGORITE ROCK 4 STRONGLY ALTERED TALC ANTIGORITE ROCK (CHATTERJEE). EARLY REPORTS OF WORK ON THE PROPERTY ARE LACKING. AT LEAST ONE SHAFT WAS SUNK ON THE LIMESTONE IN THE EARLY 1900'S. WORK SINCE THEN HAS CONSISTED OF GEOPHYSICAL AND GEOCHEMICAL SURVEYS WITH LIMITED DRILLING. SEVERAL MAGNETIC AND SOIL GEOCHEMICAL ANOMALIES WERE OUTLINED AND TESTED BY DRILLING. THE MINERALIZATION IS PRIMARILY HOSTED BY THE LIMESTONE OR SKARN UNITS BUT COPPER MOLYBDENUM MINERALIZATION WAS ALSO INTERSECTED IN ALTERED QUARTZ MONZONITE, PORPHYRIES AND ALTERED GRANITE. MINOR GALENA AND SPHALERITE AS FRACTURE FILLINGS WAS INTERSECTED IN A SHEARED ANDESITE (AR53-J-59(02))

FIELD DESCRIPTION :

SEVERAL OLD TRENCHES WERE NOTED IN THE AREA TO THE SOUTH OF THE MAIN TRENCH. THEY WERE ALL FILLED WITH DEBRIS AND THUS NO ROCKS COULD BE SEEN EXCEPT IN THE MAIN TRENCH. THE LARGE TRENCH IS APPROXIMATELY 58 METRES LONG BY 16 METRES WIDE. IT IS Y-SHAPED WITH THE OLD SHAFT BEING LOCATED BETWEN THE TWO ARMS OF THE Y. THE CENTRAL AREA OF THE TRENCH IS FLOODED BUT OUTCROP CAN BE SEEN IN VARIOUS PLACES IN THE TRENCH.

THE OLD SHAFT IS APPROXIMATELY 1.5M BY 2M AND VERTICAL. THE TIMBERS ARE STILL HOLDING AROUND THE SHAFT BUT IT IS FILLED WITH DEBRIS AND WATER TO A DEPTH OF APPROXIMATELY 1.5M FROM THE COLLAR. A SECOND SHAFT OR CAVED WORKINGS IS LOCATED TO THE WEST OF THE MAIN TRENCH.

THE ROAD LEADING TO THE MAIN TRENCH IS BECOMING OVERGROWN SO IT IS BECOMING DIFFICULT TO LOCATE.

SAMPLES

F14-03(01) ; GRAB SAMPLE OF OUTCROP FROM THE NORTH END OF THE TRENCH. GREY GNEISSIC UNIT.

F14-03(02) : GRAB SAMPLE OF REDDISH GOSSANIFEROUS ZONE AT THE NORTH END OF THE LARGE TRENCH . EXPOSED OVER A 1M BY 1M AREA. GREENISH QUARTZITE UNIT. CONTAINS 2-5% DISSEMINATED PYRITE AND MINOR CHALCOPYRITE. APPARENT IN THE TRENCH DUE TO RED IRON STAIN.

F14-03(03) ; GRAB SAMPLE OF FLOAT FROM A SMALL TRENCH LOCATED SOUTH OF THE MAIN TRENCH. ABUNDANT FLOAT-PROBABLY SUBCROP. GREY QUARTZITE: 2-3% DISSEMINATED PYRITE.

F14-03(04) ; GRAB SAMPLE OF FLOAT FROM TRENCH LOCATED SOUTH OF THE SHAFT. BLUISH COLOURED MAGNETITE BEARING TREMOLITE-DIOPSIDE MARBLE?

F14-03(05) ; GRAB SAMPLE OF OUTCROP FROM THE SOUTH END OF THE TRENCH, AT THE JUNCTION OF THE THREE LINES OF THE Y. GREY TO GREENISH MAGNETITE BEARING DOLOMITIC MARBLE WITH RED BLOTHCHES (RHODONITE?) DISSEMINATED MAGNETITE.

F14-03(06) ; GRAB SAMPLE OF MATERIAL FROM MOUTH OF CAVED SHAFT OR WORKINGS . SAME AS (05).

F14-03(07) ; GRAB SAMPLE OF OUTCROP ON EAST SIDE OF THE TRENCH. SAMPLE TAKEN DUE TO GREEN MALACHITE STAIN. SAME APPARENT ROCK TYPE AS (05)(06)

REFERENCE INFORMATION

MAP REFERENCES :
NTS 11F\14 WHYCOCOMAGH, 1:50,000

GSC MAP 1212A GEOLOGY, WHYCOCOMAGH, D.G. KELLEY, 1967, ONE INCH TO ONE MILE (LOCATION AMBIGUOUS)

NSDME AR 11F\14D 53-J-59(01) GEOLOGY, M.E.X, 1978, ONE INCH TO ONE MILE

BIBLIOGRAPHY :

WOODMAN, J.E., ORE BEARING SCHISTS OF MIDDLE AND NORTHERN CAPE BRETON , 1898, NSDME MINES REPORTS 1888-1900 (MR W 005)

KELLEY, D.G.: BADDECK AND WHYCOCOMAGH MAP AREA, GSC MEMOIR 351, 1967, P58

CHOY,R.N.Y., PETROLOGY OF THE WHYCOCOMAGH MOUNTAIN PLUTON, CAPE BRETON ISLAND, BSC THESIS, ACADIA UNIV.,1982 (GENERAL GEOLOGY ONLY)

FRENCH, V.A, GEOLOGY OF THE GILLANDERS MONTAIN INTRUSIVE COMPLEX AND SATELLITE PLUTONS, LAKE AINSLIE AREA. CAPE BRETON ISLAND, MSC THESIS, ACADIA UNIV., 1985 (GENERAL GEOLOGY ONLY)

NSDME AR 11K\03A 13-J-46(00) COPPER, MULLACH BROOK

CHATTERJEE, A.K., : TUNGSTEN MINERALIZATION IN THE CARBONATE ROCKS OF THE GEORGE RIVER GROUP, CAPE

BRETON ISLAND, NSDME PAPER 77-7, 1977, P16-19

CHATTERJEE, A.K.,: MINERALIZATION AND ASSOCIATED WALLROCK ALTERATION IN THE GEORGE RIVER GROUP, CAPE BRETON ISLAND, PHD THESIS DALHOUSIE UNIV., 1980 P55-79

NSDME AR 11F\11 CLOSURE 9(01)(02) BASE METALS, INVERNESS AND RICHMOND COUNTY

NSDME AR 11F\14D 13-J-59(00)(01) COPPER, WHYCOCOMAGH

NSDME AR 11F\14D 53-J-59(01-03) TUNGSTEN, WHYCOCOMAGH

HILL, J.R.; GEOLOGY AND GEOCHEMISTRY OF PRECAMBRIAN CARBONATE ROCKS, CAPE BRETON ISLAND, GSC OF 1597, 1987

HILL, J.R.; FOLLOW UP GEOLOGY AND GEOCHEMISTRY OF METACARBONATE FORMATIONS AND THEIR CONTAINED MINERAL OCCURRENCES, CAPE BRETON ISLAND, GSC OF 2077, 1989

REMARKS :

THE DRILLING WAS LOCATED OVER AN EXTENSIVE AREA AND DID NOT CONCENTRATE ONLY ON THE MAGNETITE ZONE AT THE SHAFT. THERE ARE VARIOUS LITHOLOGIES MINERALIZED IN THE AREA. THE PORPHYRIES INDICATED IN THE DRILL HOLES MAY BE AN INTERESTING TARGET FOR COPPER OR GOLD.

THE MINERALIZATION RECORDED IN THE PORPHYRIES IN THE DRILL CORE HAS NOT BEEN EXPLORED (AR 53-J-59(02)). THE GOLD OCCURRENCE (F14-05) AND THIS OCCURRENCE ARE FOUND IN THE SAME LITHOLOGIES. THEIR SIMILARITIES AND CLOSE RELATION TO THE EAST-WEST INTRUSIVE WOULD TEND TO INDICATE A COMMON SOURCE AND THIS SHOULD BE LOOKED ON AS ONE EXPLORATION TARGET. THE CORRELATION BETWEEN ANOMALOUS CU-MO IN THE PORPHRY DYKE IN DRILL CORE AND THE SAME RELATIONSHIP IN THE ASSAYS FROM THE 1990 FIELD CHECK TENDS TO POINT TO THE SAME SOURCE OF MINERALIZATION.

IT IS INTERESTING TO NOTE THE ANOMALOUS GOLD IN THE SKARN FROM THE 1990 NSDME SAMPLE. IT IS ALSO INTERESTING THAT THE HIGHEST W VALUES FROM THE 1990 NSDME ANALYSES CAME FROM THE QUARTZITE AND NOT THE SKARN AS MOST OF THE LITERATURE HAS INDICATED.

IT MIGHT BE USEFUL TO TAKE A CLOSER LOOK AT THE INTRUSIVE AS A POSSIBLE SOURCE OF THE MINERALIZATION. SUPPORTING EVIDENCE FOR THIS IS THE MINERALIZED PORPHRY DYKES, A COINCIDING GOLD TILL GEOCHEMICAL ANOMALY (SEE F14-05) AND THE ANOMALOUS MO VALUES IN THE SAMPLES FROM THE 1990 NSDME

SAMPLING. IT MAY ALSO BE USEFUL TO FOCUS ON A STRUCTURAL TRAP AS A SITE OF HIGHER GRADES OF MINERALIZATION. LITTLE EMPHASIS SEEMS TO HAVE BEEN PLACED ON THIS IN PAST EXPLORATION.

VERIFICATION :

WELL DESCRIBED IN THE LITERATURE. THE LOCATION IS DIFFICULT TO PINPOINT FROM THE MAPS GIVEN.IT WAS HOWEVER LOCATED IN THE FIELD IN THE 1990 NSDEM FIELD CHECK.

ASSAY DATA

CLOSURE 9(01)
HOLE4 38.0-46.8FT 0.89%CU 0.18 OZ\TON AG
GRAB SAMPLE FROM TRENCH 1.38%CU OVER 7FT

AR53-J-59(01)
DRILLHOLE 28FT 0.2%-0.5% WO3 IN ALTERED LIMESTONE OR SKARN

AR 53-J-59 (02)
HOLE WM-1 1FT SECTION 5%CU
HOLE WM-5 AND WM-9 8FT MASSIVE PYRITE ZONE RUNNING 0.5%CU
HOLE WM-9 PORPHRY DIKES GAVE 0.3%-0.5%CU AND 0.01-0.03% MO
HOLE WM-15 37FT PORPHRY DIKE GAVE 0.33% CU

NSDME 1990
BONDAR CLEGG AU+33

SAMPLE		F14-03 (02)	(03)	(04)	(05)	(06)	(07)
ELEMENT	UNITS						
NA	PCT	1.20	2.90	0.15	0.74	0.13	0.18
SC	PPM	12.0	34.0	2.2	6.7	2.5	10.0
CR	PPM	190	230	<50	110	<50	<50
FE	PCT	6.4	7.1	23.0	11.0	12.0	8.6
CO	PPM	31	30	37	33	29	44
NI	PPM	60	65	<20	<20	<20	<20
ZN	PPM	<200	230	<200	<200	<200	<200
AS	PPM	3	5	3	6	5	3
SE	PPM	<10	<10	<10	<10	<10	<10
BR	PPM	<1	<1	<1	<1	<1	<1
RB	PPM	350	27	<10	59	37	50
ZR	PPM	<500	<500	<500	<500	<500	<500
MO	PPM	75	32	<2	40	74	4
AG	PPM	<5	<5	<5	<5	<5	<5
CD	PPM	<10	<10	<10	<10	<10	<10
SN	PPM	<200	<200	<200	<200	<200	<200
SB	PPM	0.3	0.6	0.6	0.6	0.3	0.4
TE	PPM	<20	<20	<20	<20	<20	<20
CS	PPM	13	1	2	2	4	6
BA	PPM	300	110	<100	120	<100	<100
LA	PPM	18	17	<5	41	<5	<5
CE	PPM	35	32	<10	84	<10	<10
SM	PPM	11.0	5.3	0.3	7.5	1.1	1.3
EU	PPM	<2	<2	<2	<2	<2	<2

TB	PPM	2	1	<1	<1	<1	<1
YB	PPM	<5	<5	<5	<5	<5	<5
LU	PPM	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HF	PPM	<2	<2	<2	<2	<2	<2
TA	PPM	2	<1	<1	<1	<1	<1
W	PPM	742	<2	4	140	170	140
IR	PPB	<100	<100	<100	<100	<100	<100
AU	PPB	10	<5	<5	<5	<5	110
TH	PPM	15.0	1.2	<0.5	10.0	<0.5	1.3
U	PPM	4.9	1.3	0.8	3.1	2.7	1.9
WT	g	12.47	14.00	13.44	15.85	15.48	13.41

BONDAR CLEGG ATOMIC ABSORPTION

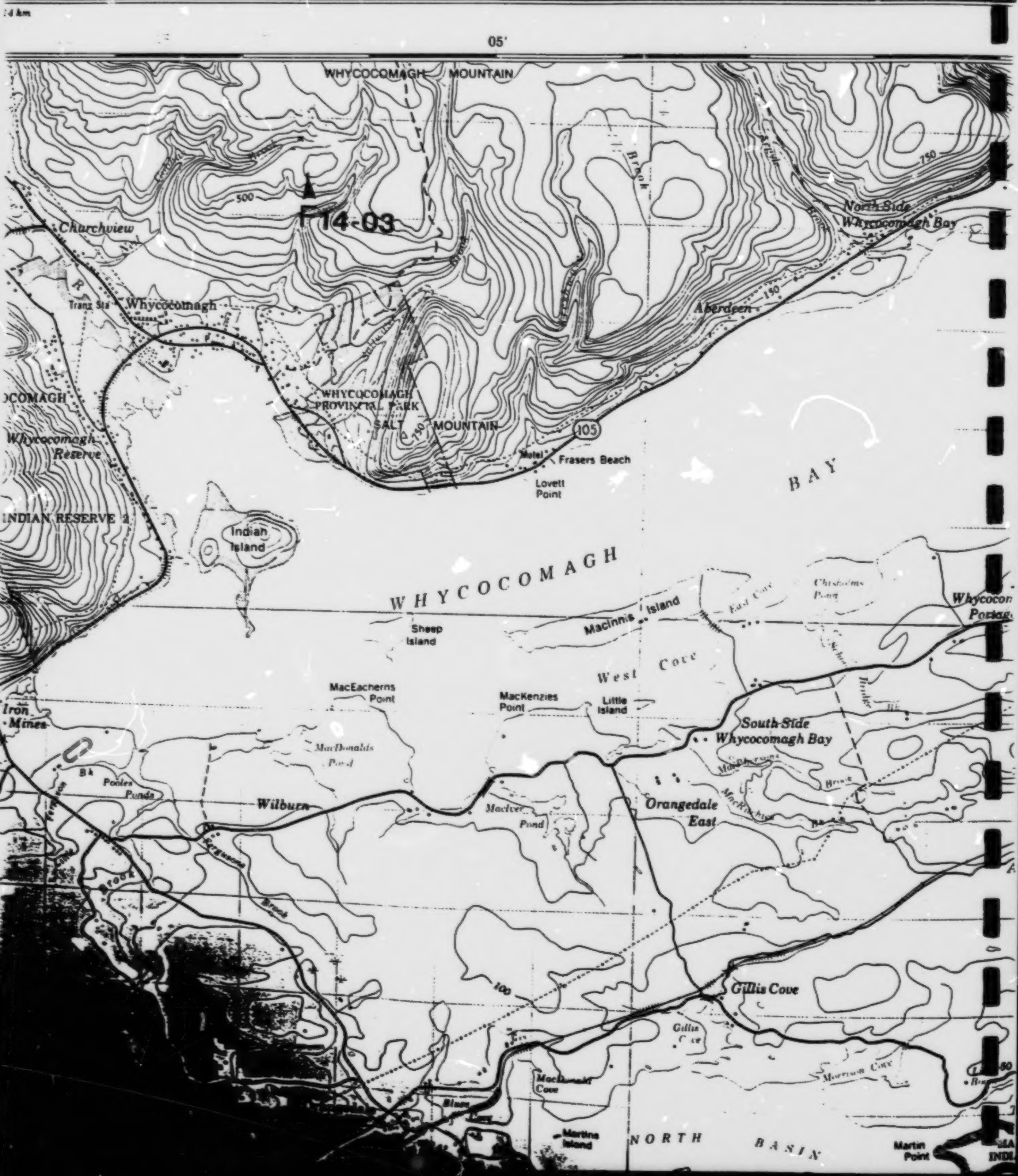
SAMPLE		F14-03 (02)	(03)	(04)	(05)	(06)	(07)
ELEMENT	UNITS						
CU	PPM	347	286	537	146	19	9590
ZN	PPM	58	27	25	16	16	25
AG	PPM	1.4	0.1	<0.1	0.4	0.1	0.8
PB	PPM	77	5	4	4	2	5

SURVEYS PERFORMED

SOIL AND STREAM GEOCHEMICAL, EM, MAGNETOMETER, DRILLING AND GEOLOGY

COMPILED BY :GARTH DEMONT, JAN., 1989
UPDATED BY :GARTH DEMONT, DEC,1990
FIELD CHECKED BY :G.DEMONT AND C.WILLIAMS, AUG., 1990

EDITION 3


05'
WHYCOCOMAGH MOUNTAIN
500
F14-03
Churchview
Trans Sta
Whycocomagh
COMAGH
Whycocomagh Reserve
INDIAN RESERVE 2
WHYCOCOMAGH PROVINCIAL PARK
SALT MOUNTAIN
750
105
Motel
Frasers Beach
Lovett Point
North Side Whycocomagh Bay
Aberdeen
150
750
Brook
BAY
Indian Island
WHYCOCOMAGH
Sheep Island
MacInnis Island
East Cove
Chisholms Pond
Whycocom
Portag
West Cove
MacEacherns Point
MacKenzies Point
Little Island
Iron Mines
MacDonalds Pond
South Side Whycocomagh Bay
Bk
Pooles Ponds
Wilburn
MacIver Pond
Orangedale East
Brook
100
Gillis Cove
Gillis Cove
MacDonald Cove
Morrison Cove
Martins Island
NORTH BASIN
Martin Point

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER :**F14-05

OCCURRENCE NAME : WHYCOCOMAGH

LOCATION

COUNTY : INVERNESS **CLAIM MAP :**11F\14D **TRACT :** 102 **CLAIM :** G AND H

NORTHING : 5094800 **EASTING :** 646430 **ZONE :** 20

DESCRIPTIVE LOCATION : TAKE THE WHYCOCOMAGH MOUNTAIN ROAD OFF THE TRANS CANADA HIGHWAY AT WHYCOCOMAGH. PROCEEED DOWN THIS ROAD FOR 4.0 KM TO AN OLD ROAD ON THE WEST SIDE. THIS ROAD IS DRIVABLE FOR 400 METRES TO AN OLD CABIN. FROM THIS POINT YOU MUST WALK TO THE OCCURRENCE. THE ROAD TAKES A SHARP SWING TO THE SW AT 280 METRES, AFTER CROSSING A SMALL BROOK. TRAVEL ANOTHER 680M SW ALONG THIS ROAD. AT THIS POINT HEAD WEST TO CATCH THE TOP END OF THE BROOK. AT A DISTANCE OF 537M FROM THE ROAD, THE ADIT BROOK ENTERS THE MAIN BROOK. TRAVEL UP THE ADIT BROOK (NORTH). THE COLLAPSED ADIT IS VISIBLE ON THE WEST SIDE AT A DISTANCE OF 75M FROM THE BROOK MOUTH.

SUMMARY DESCRIPTION

MINERALIZATION : GOLD, ARSENOPYRITE, CHALCOPYRITE AND PYRITE **COMMODITY :** CU, AS AND AU

STRATIGRAPHIC UNIT : GEORGE RIVER GROUP **AGE :** HADRYNIAN

HOST ROCK : QUARTZITE, LIMESTONE AND SCHIST

STATUS : AN ADIT WAS DRIVEN HERE IN 1897-98 AND GOLD WAS SLUICED IN THE BROOK. THE ADIT HAS NOT BEEN USED SINCE 1898. THE ADIT ENTRANCE HAS COLLAPSED AND IS NOW DIFFICULT TO DETECT.(1990)

GEOLOGICAL ENVIRONMENT :

THE OCCURRENCE IS HOSTED BY GEORGE RIVER GROUP ROCKS OF LATE PRECAMBRAIN AGE.

HILL, J.F.:" WITHIN CAPE BRETON ISLAND, CARBONATE BEARING METASEDIMENTARY ROCKS OF PRE-CARBONIFEROUS AGE HAVE HISTORICALLY BEEN CORRELATED WITH THE GEORGE RIVER GROUP. THE GROUP IS A LOOSELY DEFINED, LITHOSTRATIGRAHIC UNIT COMPRISED OF INTERBEDDED CARBONATE AND CLASTIC METASEDIMENTARY AND MINOR METAVOLCANIC ROCKS, OF VARIABLE METAMORPHIC GRADE AND OF PROBABLE LATE PRECAMBRIAN AGE. THE CARBONATE UNITS RANGE IN COMPOSITION FROM RELATIVELY PURE CRYSTALLINE LIMESTONE LIMESTONE AND DOLOSTONE OF VERY LOW METAMORPHIC GRADE , AS IN THE CRAIGNISH HILLS AND NORTH MOUNTAIN AREAS, TO MORE HIGHLY METAMORPHOSED CALCAREOUS, DOLOMITIC OR SILISEOUS MARBLE FOUND WITHIN THE BOISDALE HILLS SEQUENCE AND IN THE CAPE DAUPHIN-KELLEYS COVE BELT. ASSOCIATED METASEDIMENTARY ROCKS INCLUDE QUARTZITE, IMPURE QUARTZITE AND FELDSPATHIC SANDSTONE WHICH STRATIGRAPHICALLY BRACKET CARBONATE MEMBERS AND, AGAIN ARE OF VARIABLE METAMORPHIC GRADE. ARGILLACEOUS AND VOLCANIC ROCKS ARE OF MORE LIMITED DISTRIBUTION. "

WOODMAN 1898 :" THE CRITICAL SECTION OF THESE OLD ROCKS , FOR ECONOMIC PURPOSES, IS THAT SHOWN IN AND NEAR A TUNNEL ONE AND A HALF MILES NORTH OF BAY VIEW HOTEL. THIS APPEARS TO HAVE BEEN OPEN FOR SOME YEARS , BUT IS ONLY A PROSPECT. IT LIES ON AN UNNAMED BROOK, THE FIRST ONE SOUTH OF MULLACH BROOK, ON THE SOUTH SIDE OF THE MULLACH. THE TUNNEL RUNS NORTH AT A POINT WHERE THE BROOK TURNS QUITE ABRUPTLY FROM A SOUTH TO A SOUTHWEST COURSE. IT GIVES THE FOLLOWING SECTION NORTHWARD, THE DISTANCES, WHICH ARE ROUGHLY ESTIMATED, BEING HORIZONTAL AND NOT INTENDED TO REPRESENT THICKNESS OF THE STRATA:

(1) DARK GREEN SCHIST	10FT
(2) LIMESTONE STRIKE N65W MAG DIP 48N	15FT
(3) QUARTZITE	100FT
(4) LIMESTONE TO END OF TUNNEL	15FT

AT THE CONTACT OF (2) WITH (1) WHICH HAS THE SAME STRIKE AND DIP AS THE BANDING OF THE LIMESTONE, THE SCHIST IS SOFT AND CRUMBLY, AND TONGUES IN TO THE LIMESTONE. THE APPEARENCE SUGGESTS THAT AN ORDINARY SEDIMENTARY CONTACT HAS BEEN FAULTED IN THE COURSE OF THE METAMORHIC AND OROGENIC PROCESSES TO WHICH IT HAS BEEN SUBJECTED. SCHISTOSE SPOTS ALSO APPEAR IN THE LIMESTONE DUE PROBABLY TO A LOCAL FORMATION OF SERPENTINE AND CHLORITE. THE QUARTZITE HAS A SHEAR ZONE AT EACH CONTACT. INDEED IT LOOKS FREQUENTLY AS THOUGH THE SCHIST AND QUARTZITE GRADED IN TO EACH OTHER. THE

SCHISTOSITY IS DUE IN PART AT LEAST TO, THE PRESENCE OF INNUMERABLE SMALL SLICKENSIDED LENSES, WHICH ARE THEMSELVES FAIRLY HARD. THE QUARTZITE HAS BEEN CALLED "FELSITE" BY SOME STUDENTS. BUT THIN SECTIONS UNDER THE MICROSCOPE SHOW A FRAGMENTAL CHARACTER, THE QUARTZ GRAINS AND SECONDARY QUARTZ BEING EASILY SEEN.

SOUTH OF THE TUNNEL NEAR ITS MOUTH , IT IS MORE QUARTZITE. DOWN THE BROOK THE SECTION SHOWS ALTERNATIONS OF QUARTZITE AND LIMESTONE FOR A CONSIDERABLE, BUT UNMEASURED DISTANCE. SOUTH OF THIS FOR FIVE HUNDRED YARDS IS A BELT OF COARSE ,PINK GRANITE. BEYOND THIS IS MORE QUARTZITE TO THE EDGE OF THE PRECAMBRIAN AREA. NO ORE HAS BEEN FOUND SOUTH OF THE TUNNEL. THE LOWEST OF THE METAMORPHIC CARBONIFEROUS SERIES AT THIS POINT IS A CONGLOMERATE MEMBER, RESTING, OF COURSE, UNCONFORMABLY UPON THE OLDER ROCKS.

NORTHWARD FROM THE TUNNEL THE ROCK IS CHIEFLY LIMESTONE, AS FAR AS ANY OUTCROPS ARE VISIBLE IN THE STREAM BED.ONE HUNDRED YARDS NORTH OF THE MOUTH OF THE TUNNEL, A QUARTZ VEIN FIVE INCHES THICK CROSES THE STREAM WITH A DIRECTION N15W, AND A NORTHEAST DIP. NORTH OF THE VEIN ARE THREE INCHES OF QUARTZITE, AND BEYOND THIS TWO FEET OF SCHIST, THEN FOUR FEET OF LIMESTONE , THE OUTCROP ENDING HERE. MUCH ORE OCCURS IN THE VEIN AND QUARTZITE AND A SMALL AMOUNT IN THE LIMESTONE. BANDS OF ORE CROSS THE STREAM IN SEVERAL PLACES BEYOND THIS, BUT IN GENERAL BECOMES LESS ABUNDANT AWAY FROM THE TUNNEL."

THE GEORGE RIVER GROUP HAS BEEN INTRUDED BY A SMALL PLUG OF GRANITE PORPHRY. THE INTRUSIVE ROCKS HAVE BEEN DESCRIBED IN THESIS BY R.W.Y. CHOY AND V.A. FRENCH.

THE INTRUSIVE IS COMPOSED MAINLY OF GRANITE PORPHRY AND MINOR GRANODIORITE.(CHOY) IT IS ELLIPTICAL IN SHAPE WITH ITS LONG AXIS TRENDING EAST WEST. (CHOY) THE K\AR AGE OF 402+-20 MA WAS OBTAINED FOR AMPHIBOLE OF THE GRANITE PORPHRY (CHOY) THE ROCKS ARE IN TURN INTRUDED BY PORPHRY DYKES OF GRANITE, QUARTZ MONZODIORITE AND QUARTZ DIORITE. (CHOY) THE RELATIVE AGES OF THE VARIOUS DYKES ARE UNCERTAIN BUT THEIR CLOSE ASSOCIATION WITH THE GRANITE PORPHRY POINTS TO A SIMILAR SOURCE. (CHOY) THERE IS ALSO A DEVELOPMENT OF ENDOSKARN OF UNCERTAIN EXTENT AT THE SOUTHERN MARGIN OF THE PLUTON. (CHOY)

REFERENCE DESCRIPTION :

WOODMAN 1898 :" THE ORE THROUGHOUT THE REGION CONSISTS TO THE EYE CHIEFLY OF MASSIVE AND GRANULAR ARSENOPYRITE. HERE AND THERE IS A LITTLE PYRITE OR CHALCOPYRITE, BUT THESE ARE NOT ABUNDANT.

THE SULPHIDES SOMETIMES OCCUR IN VEINS OF QUARTZ, BUT USUALLY IN THE COUNTRY ROCK WITHOUT GANGUE. WHERE THE LIMESTONE IS MINERALIZED, THE METALS LIE ALONG THE PLANES OF SCHISTOSITY, AND THEIR GENERAL DISTRIBUTION APPEARS TO BEAR NO RELATION TO THE ABSCENCE OR PRESENCE OF VEINS. THE CHIEF PART OF THE ORE IS TO BE FOUND IN THE QUARTZITE, AND WHERE THE LIMESTONE CONTAINS SULPHIDES, QUARTZITE IS USUALLY NOT FAR DISTANT. IN PLACES WHERE THIS ROCK APPEARS TO MERGE INTO THE DARK GREEN SCHIST, THE ORE RUNS FOR SOME DISTANCE IN TO THE LATTER, BUT AS A RULE THE SCHIST IS BARREN. ALMOST ALL OF THE QUARTZITE IS IMPREGNATED WITH ARSENOPYRITE TO SUCH AN EXTENT THAT PARTICLES OF IT ARE VISIBLE IN ALMOST EVERY PIECE. FREQUENTLY, HOWEVER, THE MINERAL IS CONCENTRATED IN BANDS OR LENSES, ROUGHLY PARALLEL WITH THE CONTACTS OF THE QUARTZITE WITH ITS NEIGHBOURS. A NUMBER OF THESE LENSES CROSS THE BROOK OR ARE VISIBLE ON ITS SIDE WITHIN HALF A MILE NORTH OF THE TUNNEL. IN A FEW CASES DISTINCT LENSES ARE VISIBLE IN QUARTZ VEINS. AT A DISTANCE FROM THE TUNNEL AN INCREASING PROPORTION OF CHALCOPYRITE AND PYRITE APPEARS.

IT SEEMS EVIDENT THAT THERE IS A CLOSE CONNECTION BETWEEN THE PRESENCE OF THE ORE AND THE BAND OF QUARTZITE. THE CRYSTALS OF THE SULPHIDES ARE SCATTERED IRREGULARLY THROUGH THE MASS OF QUARTZ GRAINS, WHERE NOT BUNCHED TOGEATHER, AND APPEAR TO HAVE NO CONNECTION WITH EACH OTHER. THE ORE HAS SUFFERED ALL THE CHANGES WHICH HAVE AFFECTED THE COUNTRY ROCK.

IN THE LOWER REACHES OF THE BROOK ON WHICH THE TUNNEL IS SITUATED, SLUICING ON A SMALL SCALE HAS BEEN CARRIED ON WITH SOME SUCESS. SOME OF THE GOLD WHICH I HAVE SEEN IS MUCH COARSER THAN THAT AT MIDDLE RIVER. TWO OR THREE PENNYWEIGHTS ARE SOMETIMES TAKEN OUT IN A DAY. THE APPEARANCE OF THE GRAINS IS NOT DIFFERENT FROM THAT OF MOST PLACER GOLD. EXCEPT THAT THE SHAPE SUGGETS A SHORTER PASSAGE IN THE WATER THAN OFTEN IS THE CASE."

SUMMARY FROM AR 11F\14D 25-J-59(00) : " THERE ARE TWO LODES RUNNING NORTHWEST BY SOUTHEAST, AND DIPPING AS FAR AS I COULD ASCERTAIN, AT AN ANGLE OF 35NE. ALMOST THE ENTIRE SURFACE IS COVERED WITH DETRITUS, THE LODES ONLY CROPPING HERE AND THERE. IN THE BED OF A SMALL BROOK RUNNING NEARLY AT RIGHT ANGLES WITH THE SOUTHWEST LODE, I WAS ABLE TO ASCERTAIN ITS WIDTH TO BE NOT LESS THAN 280FT, POSSIBLY WIDER, AS THE DETRITUS COVERING PREVENTED ME SEEING THE SOUTH SIDE OF THE QUARTZ. THIS POINT OF MEASUREMENT IS AT AN ELEVATION OF SOMETHING OVER 100FT ABOVE THE LEVEL OF THE WATER. FROM THIS POINT THE GROUND RISES RAPIDLY TO THE EAST, UNTIL AT THE EXTREME SOUTHEAST END OF THE PROPERTY AN ELEVATION OF 800FT IS REACHED. THE LODES ARE RUNNING DIAGONALLY WITH THE

TREND OF THE MOUNTAIN RANGE. I WAS NOT ABLE TO SEE THE CONTACT BETWEEN THE LODE AND THE COUNTRY ROCK AT ANY POINT. ON THE SOUTHEAST SIDE THE ROCK IS EVIDENTLY SANDSTONE, AND ON THE NORTHEST SIDE QUARTZITE AND CONGLOMERATE. THE CONGLOMERATE IS LARGELY COMPOSED OF QUARTZ.

THE QUARTZ IN THE SOUTHEAST IS IN PART MASSIVE AND PART STRATIFIED. IN COLOUR RANGING FROM WHITE, LIGHT GREY, DARK GREY, GREY SHADED BLUE, AND VERY DARK GREY, SLIGHTLY MINERALIZED WITH IRON PYRITES AND MAGNETIC IRON. SOME OF THE QUARTZ SHOWS LUSTRE, BUT THE GREATER PART HAS A DULL, MILD SUGARY APPERANCE. I DID NOT SEE ANY GOLD IN THE SOLID LODE, BUT I SAW NUMEROUS SMALL PICES OF QUARTZ FANNED OUT OF THE GRAVEL SOUTH OF THE LODE, CONTAINING FINE SIGHTS OF GOLD, WHICH UNQUESTIONABLY CAME OFF IT

I WAS NOT ABLE TO DETERMINE THE FULL WIDTH OF YOUR NORTHEAST LODE , WHICH LIES SOME 1500FT FROM THE ONE DESCRIBED AND RUNNING PARALLEL WITH IT, BUT ENOUGH WAS SEEN TO DETERMINE IT IS AT LEAST 150FT WIDE. IN YOUR TUNNEL WHICH IS NOW IN THE SIDE OF THE MOUNTAIN SOME 45FT, THE WHOLE IS VEIN MATTER, QUITE DIFFERENT IN CHARACTER HOWEVER, TO THE LODE LYING TO THE SOUTHEAST, AS IT CONTAINS MUCH LIME MATTER, AND IS IN PART VERY HEAVILY MINERALIZED."

REPORTS FROM THE CANADIAN MINING REVIEW AND THE INDUSTRIAL ADVOCATE DESCRIBED THE AREA IN 1897-98. THEY NOTED THAT TWO LODES WERE LOCATED, ONE 91METRES AND THE OTHER 45 METRES WIDE. A TUNNEL WAS DRIVEN 39 METRES ACROSS THE STRATA. TWELVE SAMPLES WERE TAKEN IN 1898, 2 OF WHICH GAVE TRACES OF GOLD, AND THE REMAINDER GAVE $20.00-144.00 PER TON (AU AT $16.00 OZ). THE DEPOSIT WAS EXAMINED BY DR.GILPIN OF THE MINES DEPT IN 1898. HE TOOK FIVE SAMPLES FROM THE ADIT ONLY ONE OF WHICH RETURNED ANY GOLD VALUES.

ASSESSMENT WORK IN THIS AREA (FOR TUNGSTEN) IDENTIFIED SEVERAL SOIL ANOMALIES, PRIMARILY FOR COPPER (AR53-J-59). DRILL HOLES ON THESE TARGETS SHOWED WEAKLY MINERALIZED LITHOLOGIES OF LIMESTONE, QUARTZITE, HORNFELS AND PORPHYRIES. ONE OF THE PORPHRIES CARRIED 0.5% CU.

FIELD DESCRIPTION :

NSDME 1990

THE OLD ADIT IS BELEIVED TO BE LOCATED AT A DISTANCE OF 75 METRES FROM THE MOUTH OF ADIT BROOK. THE ENTRANCE IS NO LONGER VISIBLE BUT THE BANK IS CUT AWAY AT THIS POINT. A GREY QUARTZITE CROPS OUT AT THE TOP OF THE CUT. (F14-05(01)) A GREY TO WHITISH GREY LIMESTONE IS IN CONTACT WITH THE QUARTZITE IN THE BROOK AT THIS LOCATION. (F14-05(02)) THE LIMESTONE IS HIGHLY CONTORTED AND CONTAINS NUMEROUS RED BLOTCHES (RHODONITE?).THE

LIMESTONE IS SPECKLED WITH DISSEMINATED PYRITE AND MINOR CHALCOPYRITE. A THIN GREY SCHIST UNIT DEFINES THE CONTACT BETWEEN THE LIMESTONE AND THE QUARTZITE.

BETWEEN 75 AND 90 METRES ABOVE THE ADIT, THE ROCKS EXPOSED ARE PRIMARILY QUARTZITE. AT 90M THE LIMESTONE APPEARS AGAIN. PODS OF CALCITE CRYSTALS OCCUR ALONG JOINTS AND THE LIMESTONE IS SPECKLED WITH THE BRIGHT RED BLOTCHES. AT 105 M A WHITE SERPENTINE MARBLE IS EXPOSED. THE UNIT CONTAINS 3-5% DISSEMINATED PYRITE AND CHALCOPYRITE. (F14-05(03)) AT A DISTANCE OF 115M AN OUTCROP OF RED STAINED BRECCIATED QUARTZITE IS IN CONTACT WITH THE SERPENTINE MARBLE. (F14-05(06)) A REDDISH STAINED QUARTZ VEIN IS IN FAULT CONTACT WITH THE SERPENTINE MARBLE IN THE BED OF THE BROOK, AT A DISTANCE OF 142 METRES. THE VEIN IS APPROXIMATELY 30CM THICK. (F14-05(05)) AN OLD PIT IS LOCATED 10M TO THE WEST, ALONG STRIKE. IT WAS PROBABLY SUNK ON THIS VEIN.

A RED GRANITIC ROCK IS EXPOSED IN THE MAIN BROOK BELOW THE BRANCH ON WHICH THE ADIT IS LOCATED. AT A DISTANCE OF 480M WEST FROM THE ADIT BROOK, THE GRANITE ROCK IS IN CONTACT WITH A GREY QUARTZITE. MINOR PYRITE WAS NOTED IN THE GRANITE. (F14-05(07))

SAMPLES
F14-05(01) ; GRAB SAMPLE FROM THE MOUTH OF THE ADIT. GREY TO GREYISH BROWN QUARTZITE? WITH REDDISH ORANGE BLOTHES OF INTRUSIVE MATERIAL. THE SAMPLES APPEAR BRECCIATED AND CONTAIN PATCHES OF RED GRANITIC MATERIAL. THIS SAMPLE MAY REPRESENT A CONTACT BETWEEN THE INTRUSIVE AND THE QUARTZITE.

F14-05(02) GRAB SAMPLE FROM THE BROOK AT THE ADIT MOUTH. GREYISH WHITE LIMESTONE WITH RED BLOTCHES (RHODONITE?). 1-3% DISSEMINATED PYRITE, MINOR CHALCOPYRITE. SOAPY FEEL TO SAMPLE TALC?

F14-05(03) ; GREYISH WHITE SERPENTINE MARBLE, GREENISH SERPENTINE DISSEMINATED THROUGHOUT. CONTAINS 3-5% DISSEMINATED PYRITE WITH MINOR CHALCOPYRITE

F14-05(04) ; GRAB SAMPLE FROM OUTCROP IN THE BROOK. GREYISH QUARTZITE- RED IRON STAINING, MICRO FOLDING VISIBLE IN HAND SPECIMEN. PYRITE FOLLOWS THE FOLIATION OF THE MICRO FOLD. 1-2% PYRITE WITH MINOR CHALCOPYRITE.

F14-05(05); GRAB SAMPLE FROM THE BED OF THE BROOK. QUARTZ VEIN WITH IRON STAINING. 2-3% DISSEMINATED PYRITE WITH MINOR CHALCOPYRITE.

F14-05(06); GRAB SAMPLE ; GREY SILICIFIED QUARTZITE OR POSSIBLE MYLONITE. ROCK IS GENERALLY GREY WITH 1-2MM DISSEMINATED WHITE SPECKS IN A VERY SILICEOUS

MATRIX. LESS THAN 1% DISSEMINATED PYRITE.

F14-05(07); GRAB SAMPLE OF RED GRANITIC ROCK. MINOR DISSEMINATED PYRITE.

REFERENCE INFORMATION

MAP REFERENCES :
NTS 11F\14 WHYCOCOMAGH, 1:50,000

NSDME AR86-050, GEOLOGY AND LOCATION MAP, 1985, 1:50,000

BIBLIOGRAPHY :

WOODMAN,J.E., ORE BEARING SCHISTS OF MIDDLE AND NORTHERN CAPE BRETON, 1898, NSDME MINES REPORTS 1888-1900 (MR W 005)

RONNAN, F.P., WHYCOCOMAGH, INDUSTRIAL ADVOCATE, OCTOBER, V.2, NO6, P16, 1897 (MR R 014)

CANADIAN MINING REVIEW : MINING NOTES, REGULAR COLUMN DESCRIBING PROGRESS IN THE GOLD DISTRICTS, 1897, V.16, NO.10, NO.11, 1898, V.12, NO.3 (MR A 248)

NSDME AR 11F\14D 25-J-59(00) IRON, WHYCOCOMAGH

NSDME AR 11K\03A 13-J-46(00) COPPER, MULLACH BROOK

NSDME AR 11F\14D 53-J-59(01)(02)(03) TUNGSTEN, WHYCOCOMAGH

NSDME AR 86-050 GOLD, WHYCOCOMAGH

CHOY,R.N.Y : PETROLOGY OF THE WHYCOCOMAGH MOUNTAIN PLUTON, CAPE BRETON ISLAND, BSC THESIS, ACADIA UNIV., 1982 (GENERAL GEOLOGY ONLY)

FRENCH, V.A ; GEOLOGY OF THE GILLANDERS MOUNTAIN INTRUSIVE COMPLEX AND SATELLITE PLUTONS, LAKE AINSLIE AREA, CAPE BRETON ISLAND, MSC THESIS, ACADIA UNIVERSITY, 1985

CHATTERJEE, A.K : MINERALIZATION AND ASSOCIATED WALL ROCK ALTERATION IN THE GEORGE RIVER GROUP, CAPE BRETON ISLAND, PHD THESIS, DALHOUSIE UNIV, 1980

NSMDE AR 87-131, GOLD, WHYCOCOMAGH

NSDME AR 88-171, GOLD, WHYCOCOMAGH

HILL, J.R; GEOLOGY AND GEOCHEMISTRY OF

METACARBONATE FROMATIONS AND THEIR CONTAINED MINERAL OCCURRENCES, CAPE BRETON ISLAND, GSC OF 2077, 1989

HILL, J.R.; GEOLOGY AND GEOCHEMISTRY OF PRECAMBRIAN CARBONATE ROCKS , CAPE BRETON ISLAND, GSC OF 1597,1987

REMARKS :

DR WOODMAN WAS BROUGHT IN BY DR GILPIN TO EXAMINE THE OCCURRENCES AND GIVE AN INDEPENDENT ASSESSMENT OF IT AFTER THE AREA DID NOT REACH THE INITIAL EXPECTATIONS PORTRAYED IN EARLIER REPORTS. (NSDME MINES REPORTS 1898 , P5-6)
AN INTERESTING NOTE IS THAT THE HIGHLY ANOMALOUS GOLD TILL SAMPLES OBTAINED BY NORANDA (AR 87-131) CORRELATE VERY WELL WITH THE INTRUSIVE SHOWN ON THE GEOLOGY MAP BY M.E.X. EXPL.AR 11F\14D 53-J-59(01) (02)). IT IS INTERESTING TO NOTE THE SHARP CHANGE IN DIRECTION OF GOBHAUS BROOK FROM N-S TO E-W. THIS CORRELATES WELL WITH THE DIRECTION OF THE INTRUSIVE. PERHAPS THE INTRUSIVE HAS FOLLOWED AN EAST WEST FAULT ZONE. THIS WOULD CORRELATE WELL WITH THE MINERALIZED E-W SHEAR ZONE TRENCHED BY NORANDA (AR88-171).IN CONNECTION WITH THIS IT IS INTERESTING TO NOTE THE MINERALIZED PORHYRIES INTERSECTED IN THE VARIOUS DRILL HOLES.

THERE ARE VERY ANOMALOUS GOLD HEAVY MINERAL SAMPLES IN THE LOWER PORTION OF GOBHAUS BROOK. THESE SAMPLES ARE FOUND IN CARBONIFEROUS ROCKS. (AR 86-050) THESE VALUES HAVE NOT BEEN EXPLAINED.

VERIFICATION :

WELL DESCRIBED IN THE DESCRIPTIONS GEOLOGICALLY BUT EARLY LOCATIONAL INFORMATION IS POOR. THE GOLD ASSAYS COULD NOT BE DUPLICATED IN SAMPLES COLLECTED IN THE 1990 FIELD CHECK. THERE IS HOWEVER A LARGE AMOUNT OF SULPHIDE (PYRITE) IN MOST OF THE ROCKS SAMPLED.

ASSAY DATA

GILPIN CANADIAN MINING REVIEW

NO1	FACE OF TUNNEL	TRACE AU
NO2	30 FT FROM THE FACE	TRACE AU
NO3	60 FT FROM THE FACE	TRACE AU
NO4	90 FT FROM THE FACE	TRACE AU
NO5	105 FT FROM THE FACE	TRACE AU
NO6	MOUTH TUNNEL	3OZ 7DWT

NSDME 1990
BONDAR CLEGG AU+33

SAMPLE	F14-05(01)	(02)	(03)	(04)	(05)	(06)	(07)

ELEMENT	UNITS							
NA	PCT	1.50	0.10	0.08	1.30	1.40	0.33	2.20
SC	PPM	20.0	2.7	4.0	27.0	24.0	21.0	8.2
CR	PPM	310	51	<50	310	280	280	410
FE	PCT	1.9	3.5	1.4	2.9	3.1	2.0	2.3
CO	PPM	<10	20	13	18	14	<10	<10
NI	PPM	<20	<20	<20	39	<20	<20	30
ZN	PPM	<200	<200	<200	<200	<200	<200	<200
AS	PPM	3	36	10	2	9	8	4
SE	PPM	<10	<10	<10	<10	<10	<10	<10
BR	PPM	<1	1	1	<1	<1	<1	<1
RB	PPM	120	<10	<10	160	77	80	120
ZR	PPM	<500	<500	<500	<500	610	<500	<500
MO	PPM	2	<2	3	<2	<2	<2	<2
AG	PPM	<5	<5	<5	<5	<5	<5	<5
CD	PPM	<10	<10	<10	<10	<10	<10	<10
SN	PPM	<200	<200	<200	<200	<200	<200	<200
SB	PPM	0.3	1.0	0.2	<0.2	<0.2	0.3	0.9
TE	PPM	<20	<20	<20	<20	<20	<20	<20
CS	PPM	20	<1	<1	2	5	4	2
BA	PPM	310	<100	<100	410	240	140	700
LA	PPM	110	16	35	44	54	54	28
CE	PPM	290	24	82	100	160	140	83
SM	PPM	22.9	1.9	4.0	7.4	13.0	8.4	3.8
EU	PPM	<2	<2	<2	<2	<2	<2	<2
TB	PPM	3	<1	<1	<1	2	2	<1
YB	PPM	9	<5	<5	<5	10	9	<5
LU	PPM	1.1	<0.5	<0.5	<0.5	1.0	0.8	<0.5
HF	PPM	11	<2	<2	4	12	13	5
TA	PPM	3	<1	<1	1	3	3	1
W	PPM	3	3	<2	<2	3	4	9
IR	PPB	<100	<100	<100	<100	<100	<100	<100
AU	PPB	<5	<5	<5	<5	<5	<5	<5
TH	PPM	24.0	1.0	0.9	18.0	22.0	22.0	24.0
U	PPM	4.9	1.9	2.6	4.1	6.2	4.5	3.9
WT	g	12.77	11.92	13.66	12.50	12.66	12.66	13.79

BONDAR CLEGG ATOMIC ABSORPTION

SAMPLE		F14-05(03)	(04)
ELEMENT	UNITS		
CR	PPM		45
CO	PPM		14
NI	PPM		50
CU	PPM	181	56
ZN	PPM	34	8
AG	PPM	<0.1	0.3
PB	PPM	16	14

BONDAR CLEGG FIRE ASSAY

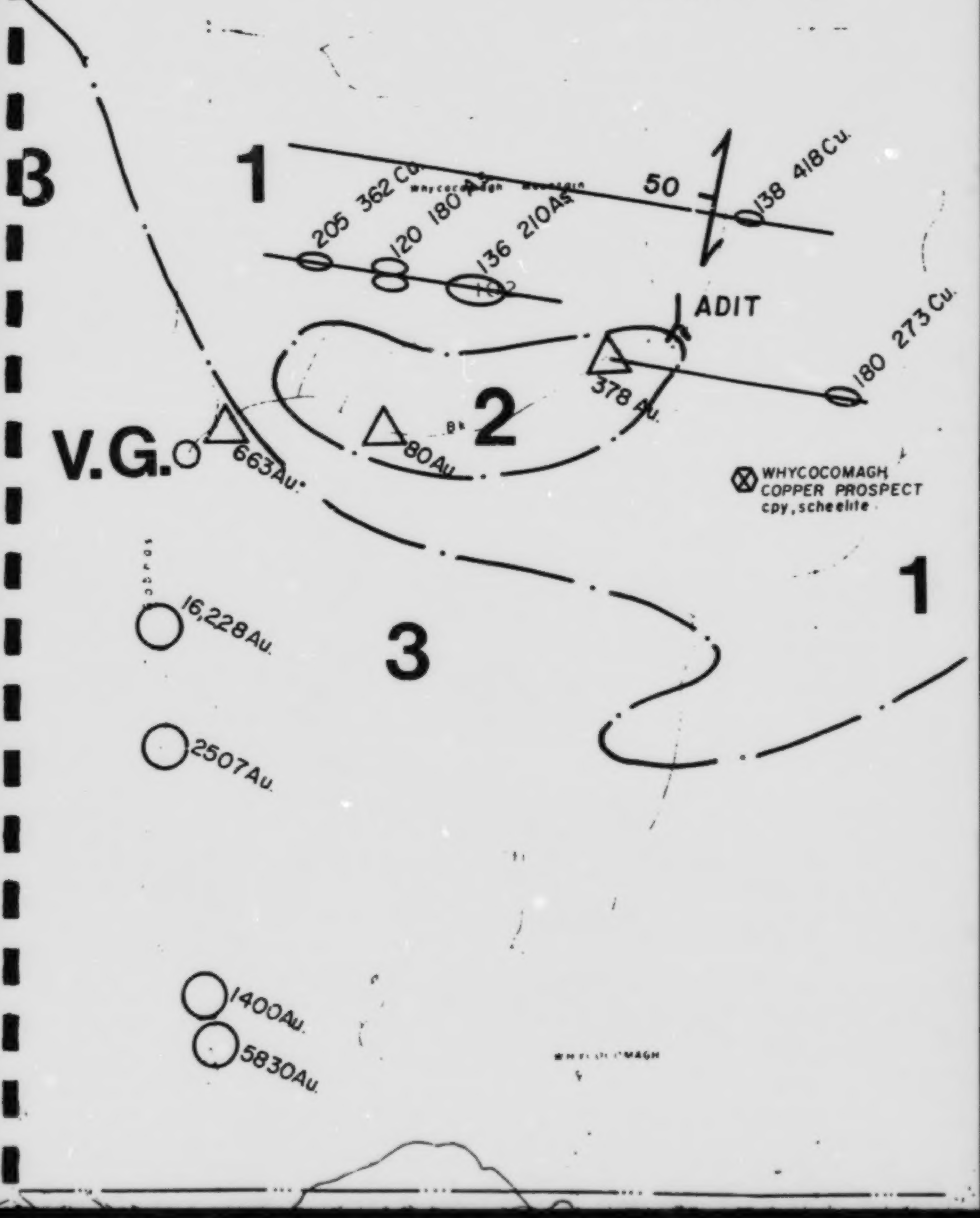
SAMPLE		F14-05(03)	(04)
ELEMENT	UNITS		
AU	PPB	<5	2
PD	PPB		3
PT	PPB		10

SURVEYS PERFORMED

SOIL AND STREAM GEOCHEMICAL, MAGNETOMETER, DRILLING, GEOLOGY, VLF, TILL GEOCHEMICAL

COMPILED BY :GARTH DEMONT, JAN.1989
UPDATED BY :GARTH DEMONT, DEC, 1990
FIELD CHECKED BY :G,DEMONT AND C. WILLIAMS, AUG., 1990

AR 86-050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Whycocomagh Mountain
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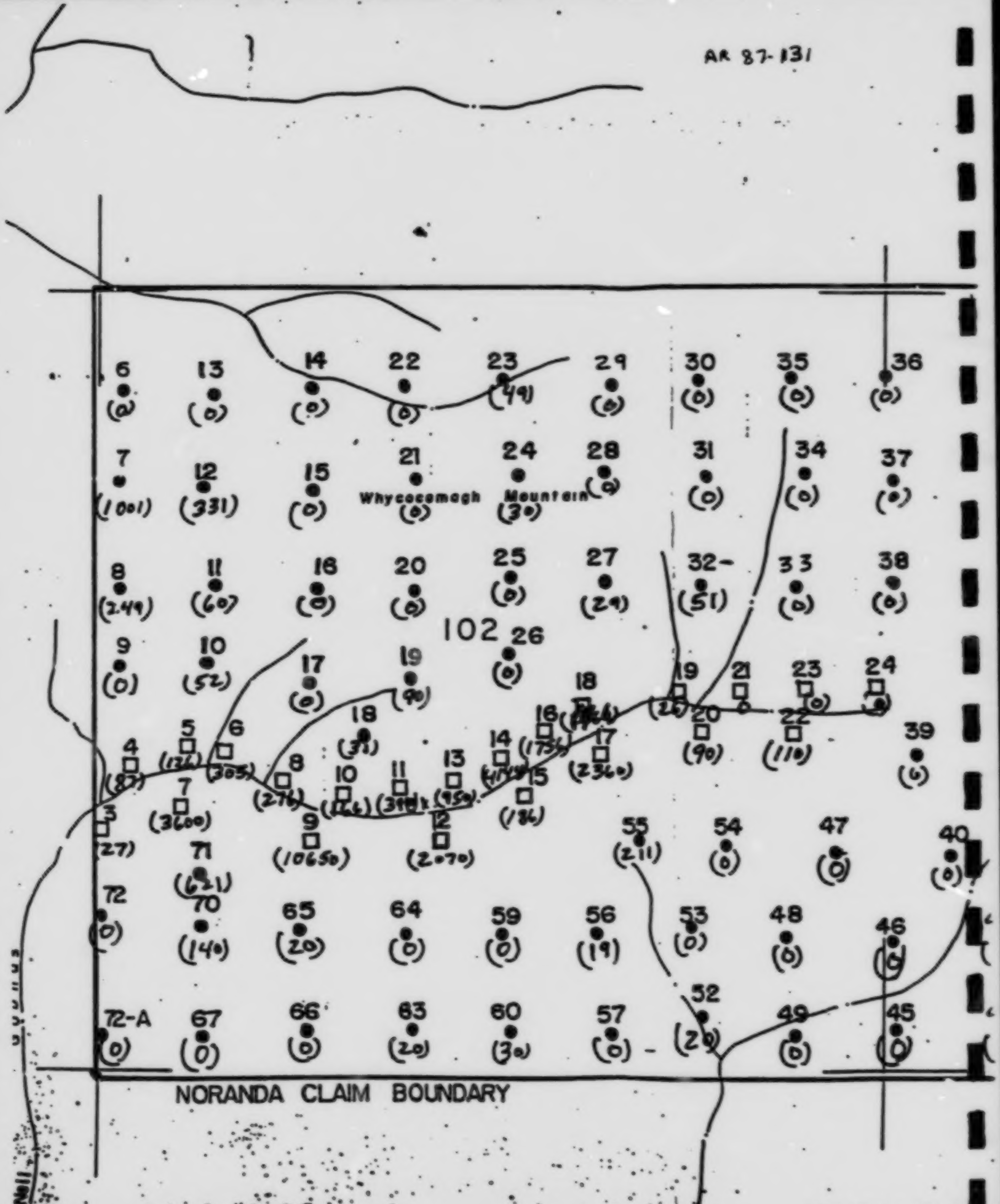
WHYCOCOMAGH

AR 87-131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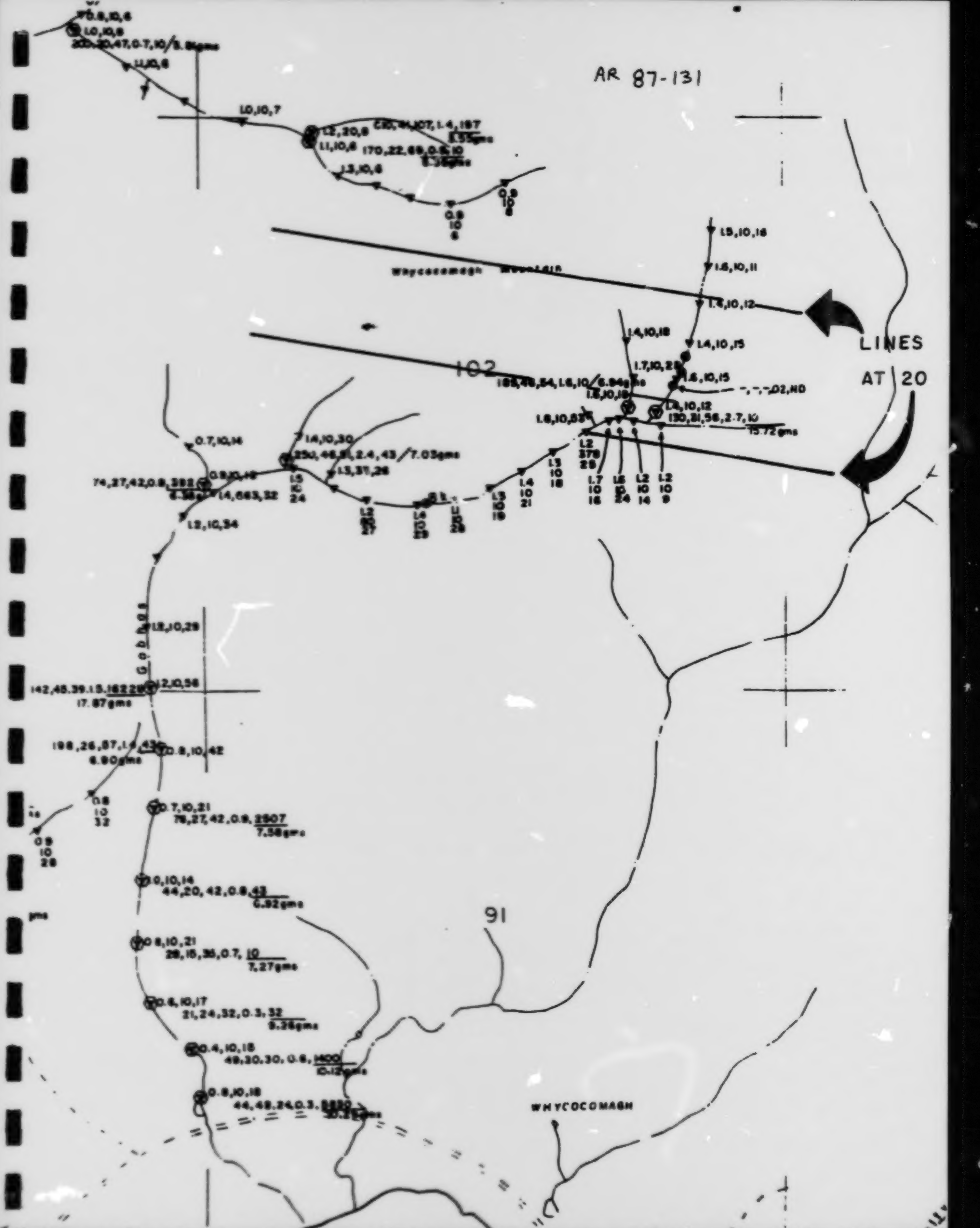
23 (0)
24 (0)
4 (87)
5 (136)
6 (305)
18 (31)
16 (1736)
14
17 (2360)
20 (90)
22 (110)
39 (0)
7 (3600)
8 (276)
10 (126)
11
13 (950)
15 (186)
3 (27)
9 (10650)
12 (2070)
55 (211)
54 (0)
47 (0)
40 (0)
71 (621)
72 (0)
70 (140)
65 (20)
64 (0)
59 (0)
56 (19)
53 (0)
48 (0)
46 (0)
72-A (0)
67 (0)
66 (0)
63 (20)
60 (30)
57 (0)
52 (20)
49 (0)
45 (0)

NORANDA CLAIM BOUNDARY

AR 87-131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10
6
0.9
10
8
Whycocomagh Mountain
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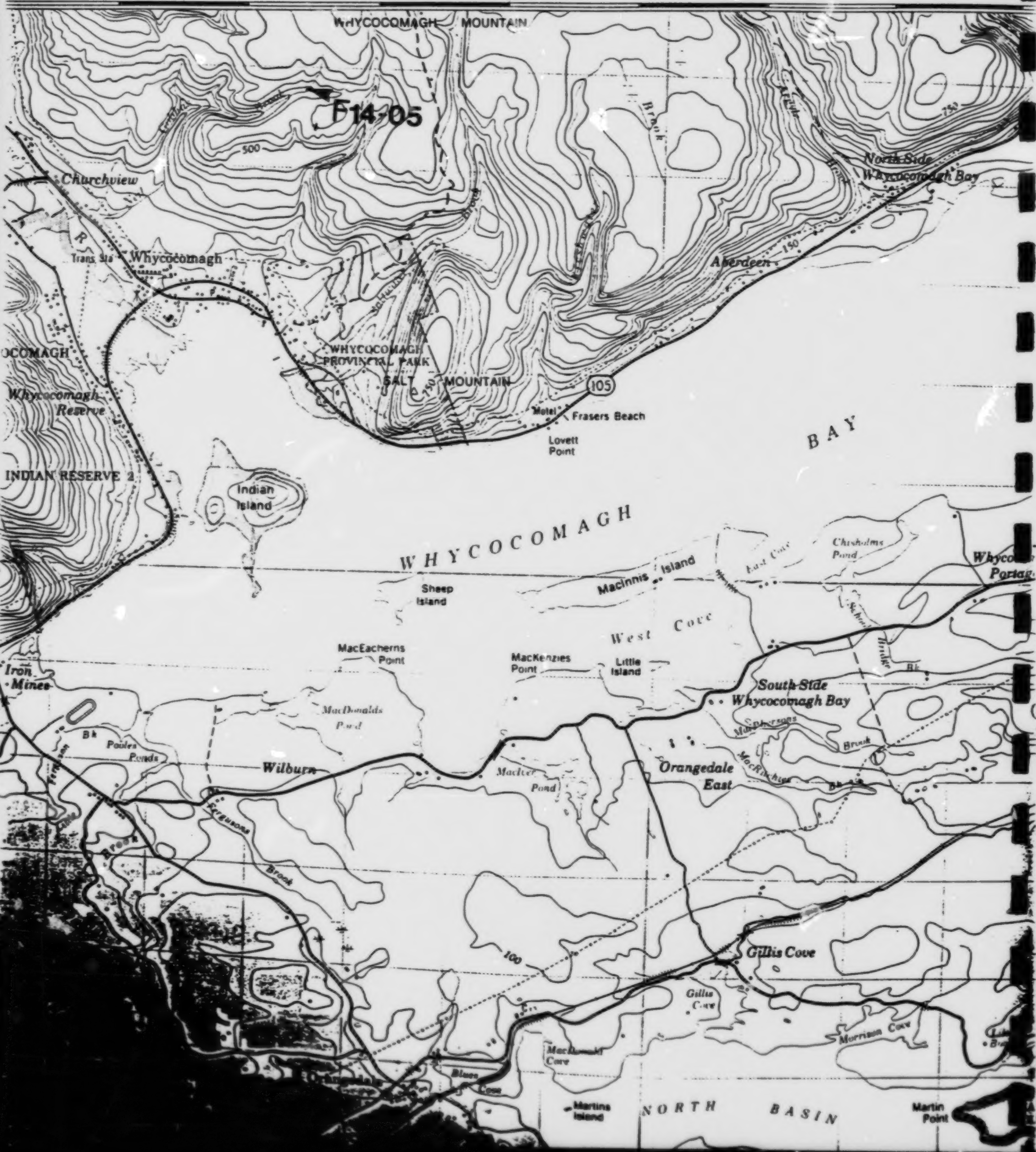
1.6,10,11
1.6,10,12
1.4,10,18
1.4,10,15
LINES
AT 20
1.7,10,21
1.6,10,15
102
188,48,54,1.6,10/6.94gms
1.8,10,18
-,-,-,.02,ND
1.4,10,12
130,31,56,2.7,10
15.72gms
1.8,10,83
1.2
378
25
1.7
10
16
1.6
10
24
1.2
10
14
1.2
10
9
0.7,10,14
1.4,10,30
250,46,81,2.4,43/7.03gms
1.3,37,26
74,27,42,0.8,382
6.38gms
0.9,10,18
1.4,663,32
1.5
10
24
1.2
10
27
1.4
10
29
1.1
10
28
1.3
10
19
1.4
10
21
1.3
10
18
1.2,10,34
1.8,10,29
142,45,39,1.3,16229
17.87gms
1.2,10,56
198,26,87,1.4,436
6.90gms
0.8,10,42
0.8
10
32
0.9
10
28
0.7,10,21
76,27,42,0.9,2607
7.58gms
0.0,10,14
44,20,42,0.8,43
6.92gms
0.6,10,21
28,15,36,0.7,10
7.27gms
0.6,10,17
21,24,32,0.3,32
5.26gms
0.4,10,18
49,30,30,0.6,1400
10.12gms
0.8,10,18
44,48,24,0.3,5850
30.2gms
91
WHYCOCOMAGH

EDITION 3

14 km

05′


WHYCOCOMAGH MOUNTAIN
F14-05
500
Brook
Brook
750
Churchview
North Side Whycocomagh Bay
R
Trans Sta
Whycocomagh
Aberdeen
150
OCOMAGH
WHYCOCOMAGH PROVINCIAL PARK
SALT MOUNTAIN
150
105
Whycocomagh Reserve
Motel
Frasers Beach
Lovett Point
BAY
INDIAN RESERVE 2
Indian Island
WHYCOCOMAGH
Chisholms Pond
East Cove
MacInnis Island
Whycoco
Portag
Sheep Island
West Cove
MacEacherns Point
MacKenzies Point
Little Island
Iron Mines
South Side Whycocomagh Bay
MacDonalds Pond
Bk
Bk
Pooles Ponds
Brook
Wilburn
MacIver Pond
Orangedale East
MacRitchies
Bk
Brook
Fergusons Brook
100
Gillis Cove
Gillis Cove
MacDonald Cove
Morrison Cove
Orangedale
Blues Cove
Martins Island
NORTH BASIN
Martin Point

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER :**F14-18

OCCURRENCE NAME : MACEACHERN BROOK (RIVER DENYS ROAD)

LOCATION

COUNTY : INVERNESS **CLAIM MAP :**11F\14B **TRACT :** 93 **CLAIM :** C

NORTHING : 5078430 **EASTING :** 630000 **ZONE :** 20

DESCRIPTIVE LOCATION : TAKE THE RIVER DENYS MOUNTAIN ROAD AT GLENDALE. DRIVE NORTH ON THIS ROAD FOR 2.5KM (JUST PAST THE SHARP BEND IN THE ROAD). AN OLD ROAD BRANCHES OFF FROM A CLEARING ON THE NORTH SIDE OF THE ROAD. THE ROAD IS NOT DRIVABLE. KEEP TO THE WEST IN THE CLEARED AREA. THERE ARE ACTUALLY TWO ROADS WHICH LEAVE THE CLEARING. THE MORE WELL TRAVELLED EAST BRANCH IS THE WRONG ROAD. THE ROAD CROSSES A BROOK (MACEACHERN) AT 360 METRES FROM THE RIVER DENYS MOUNTAIN ROAD. AT THIS POINT THE ROAD SWINGS SW. THE FIRST TRENCH IS LOCATED ON THE WEST SIDE THE ROAD 292 METRES SOUTH OF THE BROOK. THE OTHER TRENCHES AND SHAFTS ARE SOUTH OF THIS POINT.

SUMMARY DESCRIPTION

MINERALIZATION : GRAPHITE AND PYRITE **COMMODITY :** FE AND C

STRATIGRAPHIC UNIT : GEORGE RIVER GROUP **AGE :** PRECAMBRIAN

HOST ROCK : GRAPHITIC SCHIST

STATUS : THE MINERALIZATION IS PRESENTLY FOUND IN OUTCROP AND TRENCHES.(1990)IT IS ALSO REPORTED IN AT LEAST TWO SHAFTS AND TWO ADITS (1931).

GEOLOGICAL ENVIRONMENT :

THE OCCURRENCE IS HOSTED BY GEORGE RIVER GROUP ROCKS OF LATE PRECAMBRIAN AGE.

HILL, J.R. : " WITHIN CAPE BRETON ISLAND, CARBONATE BEARING METASEDIMENTARY ROCKS OF PRE-CARBONIFEROUS AGE HAVE HISTORICALLY BEEN CORRELATED WITH THE GEORGE RIVER GROUP. THE GROUP IS A LOOSELY DEFINED, LITHOSTRATIGRAPHIC UNIT COMPRISED OF INTERBEDDED CARBONATE AND CLASTIC METASEDIMENTARY AND MINOR METAVOLCANIC ROCKS, OF VARIABLE METAMORPHIC GRADE AND OF PROBABLE LATE PRECAMBRIAN AGE. THE CARBONATE UNITS RANGE IN COMPOSITION FROM RELATIVELY PURE CRYSTALLINE LIMESTONE AND DOLOSTONE OF VERY LOW METAMORPHIC GRADE , AS IN THE CRAIGNISH HILLS AND NORTH MOUNTAIN AREAS, TO MORE HIGHLY METAMORPHOSED, CALCAREOUS, DOLOMITIC OR SILICEOUS MARBLE FOUND WITHIN THE BOISDALE HILLS SEQUENCE AND IN THE CAPE DAUPHIN-KELLEYS COVE BELT. ASSOCIATED METASEDIMENTARY ROCKS INCLUDE QUARTZITE, IMPURE QUARTZITE AND FELDSPATHIC SANDSTONE WHICH STRATIGRAPHICALLY BRACKET CARBONATE MEMBERS AND, AGAIN ARE OF VARIABLE METAMORPHIC GRADE. ARGILLACEOUS AND VOLCANIC ROCKS ARE OF MORE LIMITED DISTRIBUTION."

REFERENCE DESCRIPTION :

THE FIRST RECORD OF THIS OCCURRENCE WAS BY H.FLETCHER IN 1878. NO WORK WAS RECORDED ON THE OCCURRENCE HOWEVER UNTIL 1931.(MESSERVEY) THIS CONSISTED OF TWO SHORT SHAFTS, 2 ADITS AND SEVERAL TRENCHES AND TEST PITS. AN EXTENSIVE DEPOSIT OF GRAPHITE WAS OUTLINED WITH A STRIKE LENGTH OF OVER 3000 FEET. (MESSERVEY)

HILL, J.R :" THE GLENDALE GRAPHITE SHOWING IS LOCATED ON THE WEST SIDE OF THE GLEN BROOK VALLEY ADJACENT TO THE GLENDALE CALCITE MARBLE OCCURRENCE. THE SHOWING CONSISTS OF AT LEAST TWO HIGHLY DEFORMED, CARBONACEOUS TO GRAPHITIC AND PYRITIC SCHIST ZONES, 100M WIDE, IN BLACK, CRYPTOCRYSTALLINE LIMESTONE AND SILICEOUS DOLOSTONE. IT IS UNCLEAR WHETHER THE GRAPHITE SCHISTS REPRESENT BEDDING PARALLEL LAYERS IN THE CARBONATE SEQUENCE OR DISCORDANT SHEAR ZONES. THE CARBONACEOUS LAYERS ARE LIKELY SEDIMENTARY IN ORIGIN BUT HAVE UNDERGONE SOME DEGREE OF REMOBILIZATION AND PERHAPS CONCENTRATION DURING REGIONAL METAMORPHISM. UP TO 31% NON-CARBONATE CARBON IS FOUND IN SAMPLES FROM THE MOST CARBONACEOUS ZONE. PYRITE NODULLES 5CM IN DIAMETER AND CONTAINING ANOMALOUS GOLD (UP TO 28PPB), HAVE DEVELOPED WITHIN THE GRAPHITIC SCHIST."

AR 86-051 :" RESERVE: THERE HAS NOT BEEN ENOUGH WORK DONE ON THE PROPERTY TO ESTIMATE ORE RESERVES ESPECIALLY IN A CASE SUCH AS THIS WHERE THE

ECONOMIC VARIABLES MORE OR LESS DICTATE WHAT CAN BE CONSIDERED TO BE MINEABLE. HOWEVER, THE CONSISTENCY IN CARBON CONTENT AND THE TYPE OF DEPOSIT ARE INDICATORS THAT EXTRAPOLATION OF SURFACE INFORMATION WILL PROVIDE A REASONABLY ACCURATE PICTURE OF THE EXTENT OF THE ORE. MOREVER, THE DEPOSIT HAS UNIQUE MINING AND MARKET POTENTIAL THAT ALLOWS A GRADE CUT OFF FAR BELOW NORMAL FOR THIS TYPE OF ORE BODY. WITHIN THAT FRAMEWORK, THE PROBABLE ORE RESERVES EXCEED ONE MILLION TONS IN THE EXPLORED ZONE. IF THE OPERATION CAN BE OPTIMIZED THERE MAY BE RECOVERABLE RESERVES IN EXCESS OF 10,000,000 TONS. ADDITIONAL WORK IS REQUIRED TO PROVE UP THE RESERVES."

AR 86-051:" INITIAL SAMPLING CONFIRMED HISTORICAL DATA WHICH SHOWED THE ORE HAVING CARBON CONTENT OF 40-60% AS AMORPHOUS (CRYPTOCRYSTALLINE) GRAPHITE. SUBSEQUENT WORK SHOWED THAT THE CARBON CONTENT WAS LOWER THAN ANTICIPATED, BEING 35-50% C: THAT THE SULPHUR CONTENT WAS MUCH HIGHER AT 3-55 AS OPPOSED TO 0.2-0.3% S SHOWN IN WEATHERED SAMPLES: THAT THE DEGREE OF GRAPHITIZATION WAS LESS THAN EXPECTED AND POSSIBILITY OF FLAKE GRAPHITE WAS DISCOUNTED ENTIRELY. HOWEVER, VERY LARGE TONNAGE APPEARS LIKELY, THOUGH, THE STRUCTURE IS SOMEWHAT MORE COMPLEX THAN ORIGINALLY ENVISIONED."

FIELD DESCRIPTION :

THE OCCURRENCE WAS FIELD CHECKED IN 1990 TO SEEK OUT THE SOURCE OF ANOMALOUS GOLD REPORTED IN SAMPLES TAKEN BY HILL (1987). THE OCCURRENCE WAS LISTED ONLY AS AN INDUSTRIAL MINERAL OCCURRENCES IN THE NSDME FILE. THE LARGE AND NUMEROUS PYRITE NODULES MAKE THE OCCURRENCE INTERESTING FROM A METALLIC MINERAL VIEWPOINT.

PYRITE NODULES UP TO 5CM IN LENGTH ARE COMMON IN THE GRAPHITE PILES AT THE TRENCH SITES. ONE LARGE MASS OF PYRITE NODULES WAS TAKEN FROM THE FIRST TRENCH. THE NODULES APPEAR TO FOLLOW THE FOLIATION OF THE GRAPHITIC SCHIST.(BEDDING OF SHALE?)

THE FIRST TRENCH IS LOCATED ON THE WEST SIDE OF THE ROAD, 292 METRES SOUTH OF WHERE THE ROAD CROSSES MACEACHERN BROOK. THE TRENCH IS APPROXIMATELY 10M BY 5METRES. THE TRENCH HAS BEEN FILLED IN BUT 5 PILES OF GRAPHITIC SCHIST ARE LOCATED ON THE SOUTH SIDE OF THE TRENCH. OUTCROPS OF THE GRAPHITIC SCHIST ARE EXPOSED IN THE TRENCH. IN PLACES THE SCHIST HAS THE APPEARENCE OF A BLACK SHALE WITH THIN SEAMS OF GRAPHITE ALONG FOLIATION PLANES. SMALL PATCHES OF GOSSAN WERE NOTED IN THE GRAPHITIC SCHIST (F14-GP2). A GREY LIMESTONE WITH NUMEROUS WHITE CALCITE VEINLETS IS EXPOSED IN THE NORTH END OF THE TRENCH.(F14-GP3) ANGULAR FLOAT

SAMPLES OF A WHITE DOLOMITIC MARBLE WERE NOTED IN THE EAST END OF THE TRENCH. (F14-GP5) THIS WHITE MARBLE OUTCROPS ON THE WEST SIDE OF THE ROAD 107M NORTH OF THIS TRENCH.

TRENCH 2 IS LOCATED 20M SOUTH OF TRENCH1, BESIDE A SMALL BROOK. THE TRENCH STRIKES 254DEG T AND IS 25 METRES BY 2 METRES. AT THE WEST END OF THE TRENCH THE GREY LIMESTONE IS EXPOSED IN OUTCROP. THE FIRST 20M OF THE TRENCH (STARTING AT THE ROAD) IS IN BLACK GRAPHITIC SCHIST OR SHALE (VISUALLY APPEARS LESS GRAPHITIC THAN IN TRENCH 1) . THE NEXT 3 METRES IS IN A WHITISH GREY PORPHRY OR QUARTZITE (F14-GP6). THIS UNIT CONTAINS SMALL AMOUNTS OF PYRITE.

TRENCH 3 IS LOCATED 27M SOUTH OF TRENCH 2. THE TRENCH APPEARED TO CONTAIN ONLY GREY LIMESTONE. THE NEXT TRENCH IS LOCATED 73M SOUTH OF TRENCH 2 AT A SHARP BEND IN THE ROAD. THIS IS A LARGE 20M BY 40M DOZED AREA. TWO PATCHES OF GRAPHITIC SCHIST ARE FOUND IN THE TRENCH. PYRITIC NODULES WERE ALSO FOUND IN THE PILE ALTHOUGH THEY APPEAR TO BE LESS NUMEROUS. THE TRAVERSE WAS STOPPED AT THIS POINT AS IT WAS DECIDED THAT THE SOURCE OF THE GOLD WAS PROBABLY THE PYRITE NODULES.

SAMPLES

F14-GP1 GRAB SAMPLE FROM TRENCH1 BESIDE THE GRAPHITE PILE-RUBBLY OUTCROP. BLACK SHALE? WITH THIN SEAMS OF GRAPHITE ALONG FOLIATION OR BEDDING PLANES. THIS SAMPLE ALSO CONTAINED PYRITE NODULES.

F14-GP2 GRAB SAPLE FROM TRENCH 1. BLACK SHALE? A DENSE BLACK MASSIVE ROCK- SUBCROP.. SOME SMALL BRECCIATED GOSSANIFEROUS PATCHES. UNDER THE BINOCULAR MICROSCOPE THE HAND SAMPLE IS SPECKLED WITH PYRITE WHICH APPEARS TO BE LINED UP ALONG WEAK FOLIATION PLANES. SOME PYRITE VEINLETS ALSO FOLLOW THE FOLIATION PLANES. THESE VEINLETS ARE IN TURN CUT BY MICRO CALCITE VEINLETS WHICH FOLLOW FRACTURE PLANES. THE CALCITE VEINLETS ALSO CARRY DISSEMINATED PYRITE. MINOR AMOUNTS OF CHALCOPYRITE WAS ALSO NOTED. (THIS ROCK IS PROBABLY THE SAME AS THE GRAPHITIC SCHIST BUT HAS BEEN LESS SHEARED.)

F14-GP3 GRAB SAMPLE FROM OUTCROP AT THE NORTH END OF TRENCH 1. GREY LIMESTONE. APPEAR BRECCIATED AND RECEMENTED BY WHITE CALCITE VEINLETS.

F14-GP4 SELECT MASSIVE PYRITE NODULES FROM GRAPHITE SCHIST PILE IN TRENCH 1.

F14-GP5 GRAB SAMPLE OF SUBCROP FROM SOUTH END OF TRENCH 1. CREAM COLOURED DOLOMITE.

F14-GP6 GRAB SAMPLE OF GREY-WHITE PORPHRY FROM

TRENCH 2. UP TO 1% DISSEMINATED PYRITE.

F14-GP7 SELECT PYRITE NODULES FROM GRAPHITIC SCHIST PILES IN TRENCH4.

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11F\14 WHYCOCOMAGH, 1:50,000

MILLIGAN, G.C: GEOLOGY MAP, 1INCH TO 1\2 MILE, NSDME MEMOIR 7 (GENERAL GEOLOGY ONLY)

BIBLIOGRAPHY :

FLETCHER, H.:GSC REPORT OF PROGRESS 1878-79, PART H, P1 AND 2

NSDME AR11F\14B 23-J-23(00) GRAPHITE, GLENDALE

NSDME AR 86-024 GRAPHITE, GLENDALE

NSDME AR 86-051 GRAPHITE, GLENDALE

MESSERVEY, J.P, NSDME ANNUAL REPORT ON MINES, 1931, P124-126

HILL, J.R: GEOLOGY AND GEOCHEMISTRY OF PRECAMBRIAN CARBONATE ROCKS, CAPE BRETON ISLAND, GSC OF 1597, 1987

HILL, J.R: FOLLOW UP GEOLOGY AND GEOCHEMISTRY OF METACARBONATE FORMATIONS AND THEIR CONTAINED MINERAL OCCURRENCES, CAPE BRETON ISLAND, GSC OF 2077, 1989

MILLIGAN,G.C: GEOLOGY OF THE GEORGE RIVER SERIES, CAPE BRETON, NSDME MEMOIR 7, 1970

MILLS, R.F; GEOCHEMICAL ANALYSES OF BULK STERAM SEDIMENT SAMPLES FROM NORTHERN NOVA SCOTIA, NSDME OFR89-007, 1989

REMARKS :

IT HAS NOT BEEN DETERMINED WHETHER THE BLACK GRAPHITIC SCHIST IS ACTUALLY A DEFORMED AND ALTERED BLACK SHALE OR A GRAPHITIC CARBONACEOUS SHEAR ZONE. THE SAMPLES WILL HAVE TO BE EXAMINED UNDER THE MICROSCOPE. IT IS ALSO UNDETERMINED HOW THE PYRITE IS RELATED TO THE GRAPHITE DEVELOPMENT. ONE INTERESTING NOTE IS THE ANOMALOUS MERCURY IN SAMPLES TAKEN FROM THE TRENCHES BY

J.R.HILL.

PRELIMINARY STREAM SEDIMENT RESULTS (P. ROGERS) INDICATE A STRONG MERCURY ANOMALY IN THIS AREA. THE PRELIMINARY RESULTS ALSO SHOW A STRONG CORRELATION BETWEEN KNOWN BASE METAL OCCURRENCES IN THE PROVINCE AND ANOMALOUS MERCURY LOCATIONS. A SINGLE POINT AU STREAM SEDIMENT ANOMALY WAS NOTED IN THE THE BROOK ADJACENT TO THIS OCCURRENCE IN NSDME OFR 89-007 (R.F. MILLS). THE STREAM SEDIMENT SAMPLES FROM THIS BROOK ARE ALSO ANOMALOUS IN ARSENIC.

BASED ON THE KNOWLEDGE THAT THERE IS A LARGE AMOUNT OF SULPHIDE ASSOCIATED WITH THE GRAPHITE AND THE ASSOCIATED MERCURY ANOMALY, THIS AREA MAKES FOR AN INTERESTING BASE METAL EXPLORATION TARGET. THE NODULES ARE SLIGHTLY ANOMALOUS IN BASE AND PRECIOUS METALS. CONSIDERING THE EXTENT OF THE GRAPHITE DEPOSIT THERE IS A LARGE EXPLORATION TARGET AVAILABLE.

VERIFICATION :

THE OCCURRENCE IS WELL DESCRIBED IN THE LITERATURE AND WAS LOCATED AND SAMPLED IN THE FIELD BY NSDME STAFF IN 1990.

ASSAY DATA

AR 86-051

" ASSAY DATA HAS OFTEN BEEN CONNTRADICTORY. HOWEVER, AVERAGING OF VARIOUS SOURCE DATA GIVE THE FOLLOWING RESULTS.

CARBON 36-44%
SULPHUR 3-5%
ASH 55-60%
VOLATILES 3-5%
FIXED CARBON 33-37%

THE ASH CONSISTS MAINLY OF SILICA, ALUMINA,AND IRON OXIDE WITH MINOR OR TRACE AMOUNTS OF CALCIUM, BARIUM, MANGANESE, NICKEL, VANADIUM AND MANGANESIUM. NICKEL AND VANADIUM VALUES ARE QUITE ANOMALOUS AND MAY PRESENT AN ENVIRONMENTAL CONCERN."

NSDME 1990
BONDAR CLEGG AU+33

SAMPLE		F14-GP(01)	GP(03)	GP(04)	GP(05)	GP(06)
ELEMENT	UNITS					
NA	PCT	0.09	<0.05	<0.05	0.11	2.00
SC	PPM	15.0	<0.5	1.9	<0.5	28.0
CR	PPM	250	<50	270	<50	<50
FE	PCT	1.5	<0.5	33.0	<0.5	5.8
CO	PPM	<10	<10	19	<10	28
NI	PPM	31	<20	160	<20	<20
ZN	PPM	<200	<200	<200	<200	<200
AS	PPM	36	5	448	2	6
SE	PPM	<10	<10	<10	<10	<10

BR	PPM	10	<1	8	<1	<1
RB	PPM	98	<10	<10	<10	76
ZR	PPM	<500	<500	<500	<500	<500
MO	PPM	26	<2	8	<2	<2
AG	PPM	<5	<5	<5	<5	<5
CD	PPM	<10	<10	<10	<10	<10
SN	PPM	<200	<200	<200	<200	<200
SB	PPM	1.7	<0.2	7.1	<0.2	0.6
TE	PPM	<20	<20	<20	<20	<20
CS	PPM	12	<1	2	<1	14
BA	PPM	<100	<100	<100	<100	570
LA	PPM	40	5	<5	<5	15
CE	PPM	120	10	<10	<10	28
SM	PPM	4.9	0.7	0.7	0.5	4.7
EU	PPM	<2	<2	<2	<2	<2
TB	PPM	1	<1	<1	<1	<1
YB	PPM	<5	<5	<5	<5	<5
LU	PPM	<0.5	<0.5	<0.5	<0.5	<0.5
HF	PPM	2	<2	<2	<2	<2
TA	PPM	<1	<1	<1	<1	<1
W	PPM	<2	<2	<2	<2	<2
IR	PPB	<100	<100	<100	<100	<100
AU	PPB	15	<5	22	<5	<5
TH	PPM	10.0	<0.5	0.5	<0.5	2.3
U	PPM	35.0	1.0	1.0	0.7	0.6
WT	g	10.36	12.99	16.79	13.50	15.37

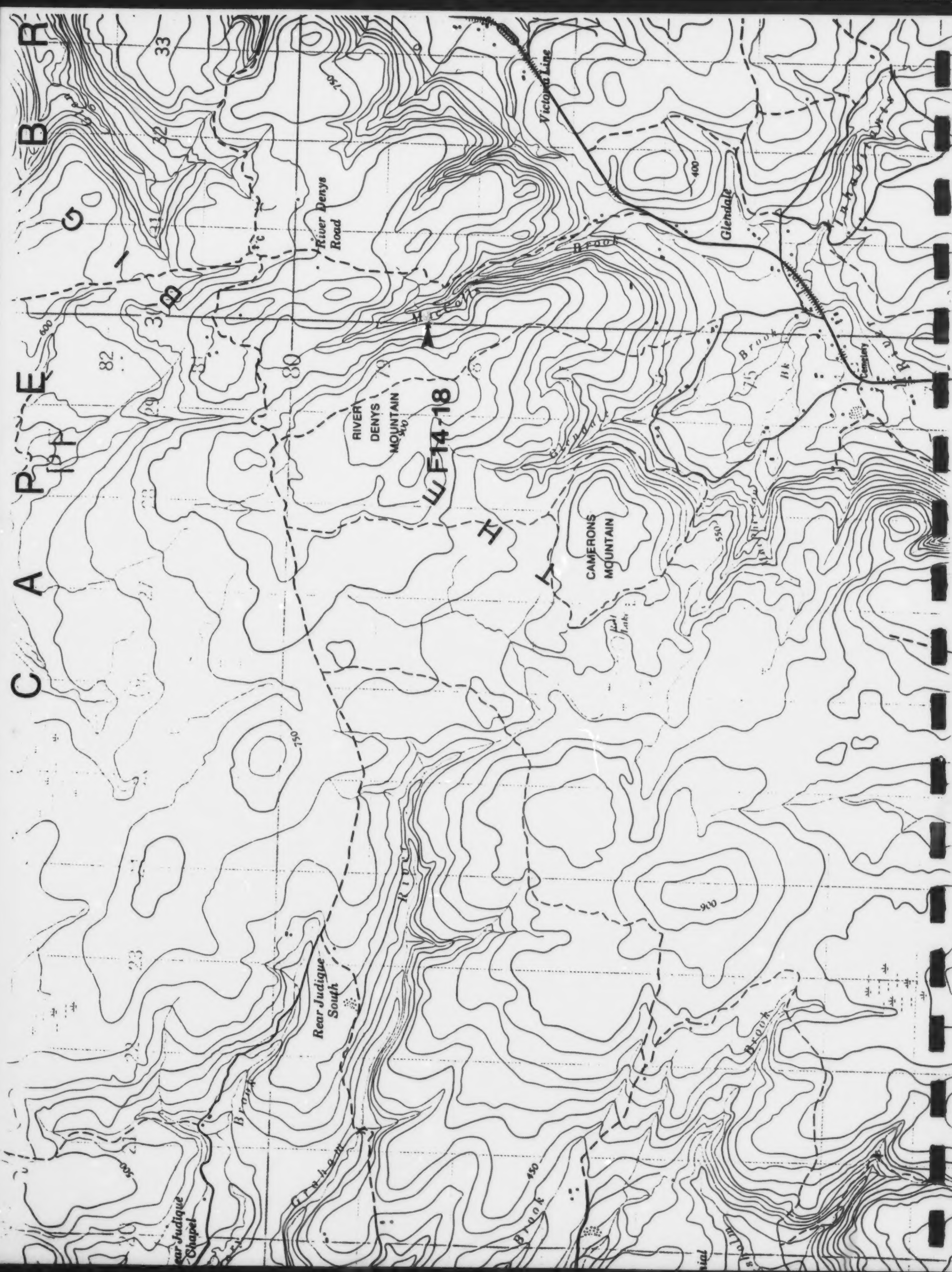
ATOMIC ABSORPTION

SAMPLE		F14-GP(04)
ELEMENT	UNITS	
CR	PPM	138
CO	PPM	7
NI	PPM	112
CU	PPM	393
PD	PPB	2
PT	PPB	5

SURVEYS PERFORMED

GEOLOGY, EM-VLF, TRENCHING, SHAFTS AND ADITS

COMPILED BY :GARTH DEMONT, JAN,1991
UPDATED BY :
FIELD CHECKED BY :G.DEMONT AND C.WILLIAMS, AUG,1990


C A P E B R
River Denys Road
Victoria Line
Glendale
RIVER DENYS MOUNTAIN
CAMERONS MOUNTAIN
11F14-18
Rear Judique South
Rear Judique Chapel
Graham
Brook
Cemetery
900
750
600
550
450
400
80
82
33
32
23

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER :**K01-03

OCCURRENCE NAME : MUSGRAVE SHOWINGS (FRENCHVALE ROAD)

LOCATION

COUNTY : CAPE BRETON **CLAIM MAP :**11K\01C **TRACT :** 5 **CLAIM :** G, G, G, J, G AND L

NORTHING : 5111570, 5111730, 5111780, 5112120, 5111830 AND 5112020 **EASTING :** 705270, 705380, 705750, 705820, 705340 AND 705140 **ZONE :** 20

DESCRIPTIVE LOCATION : LOCATION 1,2, AND 3 OUTCROP LOCATION 4 DRILL HOLE MZ 67-12 LOCATION 5 DRILL HOLE MZ 67-3 AND 67-5 LOCATION 6 DRILL HOLE 70-3 THE MINERALIZATION CAN BE SEEN IN A RUBBLY OUTCROP LOCATED JUST NORTH OF THE GRAVEL PIT ROAD OPPOSITE THE CAMPBELL ROAD.

SUMMARY DESCRIPTION

MINERALIZATION : CHALCOPYRITE, MALACHITE, PYRITE AND GALENA **COMMODITY :** CU, FE AND PB

STRATIGRAPHIC UNIT : GRANTMIRE FORMATION **AGE :** MISSISSIPPIAN

HOST ROCK : CONGLOMERATE AND LIMESTONE

STATUS : THE MINERALIZATION WAS FOUND IN OUTCROP AND DRILL CORE.

GEOLOGICAL ENVIRONMENT :

GSC MEMOIR 351 :" MISSISSIPPIAN SEDIMENTARY ROCKS IN THE MARITIME PROVINCES HAVE MOST COMMONLY BEEN DIVIDED INTO THREE GROUPS : THE LOWER MISSISSIPFIAN HORTON GROUP AND THE UPPER MISSISSIPPIAN WINDSOR AND CANSO GROUPS.

LOWER MISSISSIPPIAN ROCKS OF THE HORTON GROUP ARE PROBABLY CONTINENTAL IN ORIGIN, AS SUGGESTED BY THE PRESENCE OF A TERRESTRIAL FLORA AND THE LACK OF MARINE FOSSILS. UPPER MISSISSIPPIAN ROCK OF THE WINDSOR GROUP ARE CHIEFLY MARINE AS INDICATED BY THE NUMEROUS FOSSILS FOUND IN WINDSOR LIMESTONES."

AR 13-C-29(01) :" THE STRATA DIP SHALLOWLY TO THE NORTHWEST AT 15-30 DEGREES. THE BASAL PORTION OF THE WINDSOR GROUP COMPRISES A THICK SUCCESION OF MAROON TO CHOCOLATE RED CONGLOMERATE OF DELTAIC OR PIEDMONT ORIGIN, AND TERMED THE GRANTMIRE FORMATION. TYPICALLY THE CONGLOMERATE IS POORLY CONSOLIDATED, COMPOSED OF SEMI ROUNDED PEBBLES-COBBLES-BOULDERS OF INTERMEDIATE TO ACID VOLCANICS AND IGNEOUS MONZONITIC ROCKS, APPARENTLY DERIVED FROM THE COXHEATH HILLS IMMEDIATELY TO THE SOUTHWEST.

THE GRANTMIRE CONGLOMERATE GRADES RAPIDLY INTO A NARROW ZONE OF GREY CALCAREOUS CONGLOMERATE FORMING THE LOWERMOST PART OF THE MARINE WINDSOR GROUP. THE CONGLOMERATE IS TYPICALLY 2 TO 4 FEET THICK, BUT THICKENS TO 15 FEET AT THE EASTERN END OF THE PROPERTY. THIS CONGLOMERATE MARKS THE TRANSITION FROM THE ALLUVIAL TERRESTRIAL ENVIRONMENT TO THE SHALLOW MARINE CONDITIONS PREVAILING THROUGHOUT THE REMAINDER OF WINDSOR TIMES. A SUCCESION OF THINLY BANDED GREY TO DARK GREY LIMESTONE, CALCAREOUS SHALE, SILTSTONE AND SANDSTONE UP TO 150 FEET OR MORE IN THICKNESS IMMEDIATELY OVERLIES THE GREY CONGLOMERATE."

REFERENCE DESCRIPTION :

REF 1 :" PROSPECTING AND DIAMOND DRILLING HAVE INDICATED LOW GRADE (TYPICALLY LESS THAN 0.5%) COPPER MINERALIZATION OVER A 5 MILE STRIKE LENGTH ALONG THE MARINE WINDSOR GRANTMIRE FORMATION CONTACT. THE MINERALIZATION OCCURS AS FINELY DISSEMINATED SULPHIDES IN A 4 TO 8 FOOT ZONE OF GREY CALCAREOUS CONGLOMERATE OVERLAIN BY DARK GREY SILTY TO SHALY LIMESTONE."

THE MALACHITE AND CHALCOPYRITE MINERALIZATION WAS FOUND IN A GREY CALCAREOUS CONGLOMERATE AND THE OVERLYING GREY LIMESTONE. THE MINERALIZATION IS EXPOSED IN 4 OUTCROPS AND IN 4 HOLES DRILLED ON THE PROSPECT. (REF 1 AND 2) THE CHALCOPYRITE AND PYRITE OCCUR AS GRAINS IN THE MATRIX OF THE CONGLOMERATE

AND IN HAIRLINE CALCITE FILLED FRACTURES. THE SHOWINGS WERE TRENCHED AND EXPOSED A 0.3- 0.9 METRE THICK MINERALIZED ZONE. (REF 1) REPRESENTATIVE SAMPLES FROM THE TRENCHES GAVE LESS THAN 0.5% CU. (REF 1) ALL 4 DRILL HOLES HIT THE MINERALIZED ZONE AT THE TOP OF THE GRANTMIRE ALTHOUGH VALUES WERE BELOW ECONOMIC GRADE.

FIELD DESCRIPTION :

THE MINERALIZATION IS EXPOSED IN A RUBBLY OUTCROP JUST NORTH OF THE GRAVEL PIT ROAD OPPOSITE THE CAMPBELL ROAD. THE MINERALIZATION WAS OBSERVED IN A GREY CALCAREOUS? SANDSTONE. THE SANDSTONE OVERLIES A CLAST SUPPORTED POORLY CONSOLIDATED CONGLOMERATE. MINOR MALACHITE STAIN WAS SEEN IN THE CONGLOMERATE. THE PRINCIPAL MINERALIZATION IS CLOSELY RELATED TO A REDDISH ORANGE OXIDIZED LAYER IN THE SANDSTONE.

SAMPLE 1: GRAB SAMPLE OF OUTCROP. GREY FINE GRAINED SILTY SANDSTONE WITH A REDDISH OXIDIZED HORIZON. THE MALACHITE AND CHALCOPYRITE IS CONCENTRATED ALONG THE EDGE OF THE REDDISH HORIZON. THERE ARE ALSO THIN LAYERS OF DISSEMINATED BLACK ORGANIC MATERIAL.

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\01 SYDNEY, 1:50,000

GSC MAP 360A ; GEOLOGY, W.A. BELL AND E.A. GORANSON, ONE INCH TO ONE MILE, 1938 (GENERAL GEOLOGY NO LOCATION)

NSDME MAP 86-1, GEOLOGICAL MAP OF THE SYDNEY BASIN, R.C. BOEHNER AND P.S. GILES, 1:50,000, 1980

BIBLIOGRAPHY :

1) NSDME AR 11K\01B 13-C-29(01) COPPER, FRENCHVALE

2) NSDME AR 11K\01B 13-C-39(01) COPPER, FRENCHVALE-LEITCHES CREEK

3) OLDALE, H.R. : A CENTENNIAL OF MINING EXPLORATION AND DEVELOPMENT COXHEATH HILLS, CAPE BRETON ISLAND, NOVA SCOTIA : TRANS, CAN. INST. MINING MET., V.70, P322: 1967 (MR D 003)

4) KIRKHAM, R.V. AND W.P BINNEY : A STUDY OF COPPER MINERALIZATION IN MISSISSIPPIAN ROCKS OF NOVA SCOTIA : GSC PAPER 74-1, PART A, P129-130, 1974

5) KIRKHAM, R.V.: GEOLOGY OF COPPER AND MOLYBDENUM

DEPOSITS: GSC PAPER 71-1, P86-87, 1971

6) POTTER, W.: PRELIMINARY FIELD REPORT ON THE GRANTMIRE PROJECT, NSDME OFR 076, 1971

7) KELLEY, D.G., BADDECK AND WHYCOCOMAGH MAP AREA, GSC MEMOIR 315, 1967 (GENERAL GEOLOGY DESCRIPTION)

REMARKS :

A SOIL GEOCHEMICAL ANOMALY 600 METRES BY 75 METRES WAS LOCATED TO THE EAST OF THE MINERALIZED OUTCROP. THE ANOMALY WAS TESTED BY HOLE MZ 67-12. THE MINERALIZATION IS WIDESPREAD, AS IT APPEARS IN THE OUTCROP AND ALL 4 DRILLHOLES. THE GRADE HOWEVER IS LESS THAN 0.5%. SOME MINOR AMOUNTS OF PB AND ZN ARE ASSOCIATED WITH THE COPPER.
THE MINERALIZATION WAS OBSERVED IN OUTCROP IN AN NSDME FIELD CHECK IN 1989.

VERIFICATION :

THE OCCURRENCE IS WELL DESCRIBED IN THE LITERATURE AND MINERALIZTION WAS OBSERVED IN ONE OUTCROP BY NSDME STAFF IN 1989.

ASSAY DATA

REF 1

```
HOLE MZ 67-3
215-216 FEET 0.33% CU, 0.23% ZN GREY CALCAREOUS CONGLOMERATE
DISSEMINATED COPPER SULPHIDE IN THE MATRIX

HOLE MZ 67-5
280-281 FEET       0.16% CU   DARK GREY LIMESTONE, SILTY, CALCITE
                            BLEBS, FINE FLECKS OF COPPER SULPHIDE
281-281.7 FEET     0.53% CU  281-282.8 GREY CONGLOMERATE;
                                DISSEMINATED COPPER SULPHIDES
281.7-282.1 FEET  0.26% CU
282.1- 282.8 FEET 0.21% CU

HOLE MZ 67-12
99-101 FEET  0.14% CU    DARK GREY SILTY LIMESTONE DISSEMINATED
                         COPPER SULPHIDES
101-103 FEET 0.44% CU    GREY CALCAREOUS CONGLOMERATE
                         DISSEMINATED COPPER SULPHIDES
```

REF 2

```
HOLE 70-3            CU     PB      ZN
697.0-699.0 FEET  0.10    0.01     0.02   LIMESTONE MEDIUM TO DARK
                                            GREY, BANDED, ARGILLACEOUS
699.0-702.9 FEET  0.29    0.16     0.07  CONGLOMERATE GREY TO
                                          GREEN GREY, SOFT, CALCAREOUS
                                          MATRIX CONTAINS WELL ROUNDED
                                          PEBBLES TO MAXIMUM 6INCHES AND
```

COMMONLY TO 2.5 INCHES OF RED CHERTY RHYOLITE, INTERMEDIATE VOLCANICS(SOME PORPHYRITIC) AND INTRUSIVES. PYRITE AND CHALCOPYRITE OCCUR AS GRAINS IN THE MATRIX AND IN HAIRLINE VEINLETS OF CALCITE CUTTING PEBBLES AND CONTAINED WITHIN THE PEBBLES THEMSELVES. MATRIX BECOMES PROGRESSIVELY LESS CALCAREOUS TOWARDS THE BASE OF THE SECTION.

NSDME 1990
BONDAR CLEGG AU +33

SAMPLE		K01-03
ELEMENT	UNITS	
NA	PCT	1.60
SC	PPM	10.0
CR	PPM	270
FE	PCT	2.3
CO	PPM	37
NI	PPM	<20
ZN	PPM	3100
AS	PPM	29
SE	PPM	<10
BR	PPM	3
RB	PPM	58
ZR	PPM	<500
MO	PPM	2
AG	PPM	7
CD	PPM	<10
SN	PPM	<200
SB	PPM	1.6
TE	PPM	<20
CS	PPM	2
BA	PPM	190
LA	PPM	36
CE	PPM	110
SM	PPM	11.0
EU	PPM	<2
TB	PPM	2
YB	PPM	<5
LU	PPM	<0.5
HF	PPM	5
TA	PPM	<1
W	PPM	<2
IR	PPB	<100
AU	PPB	18
TH	PPM	9.3
U	PPM	5.4
WT	g	13.39

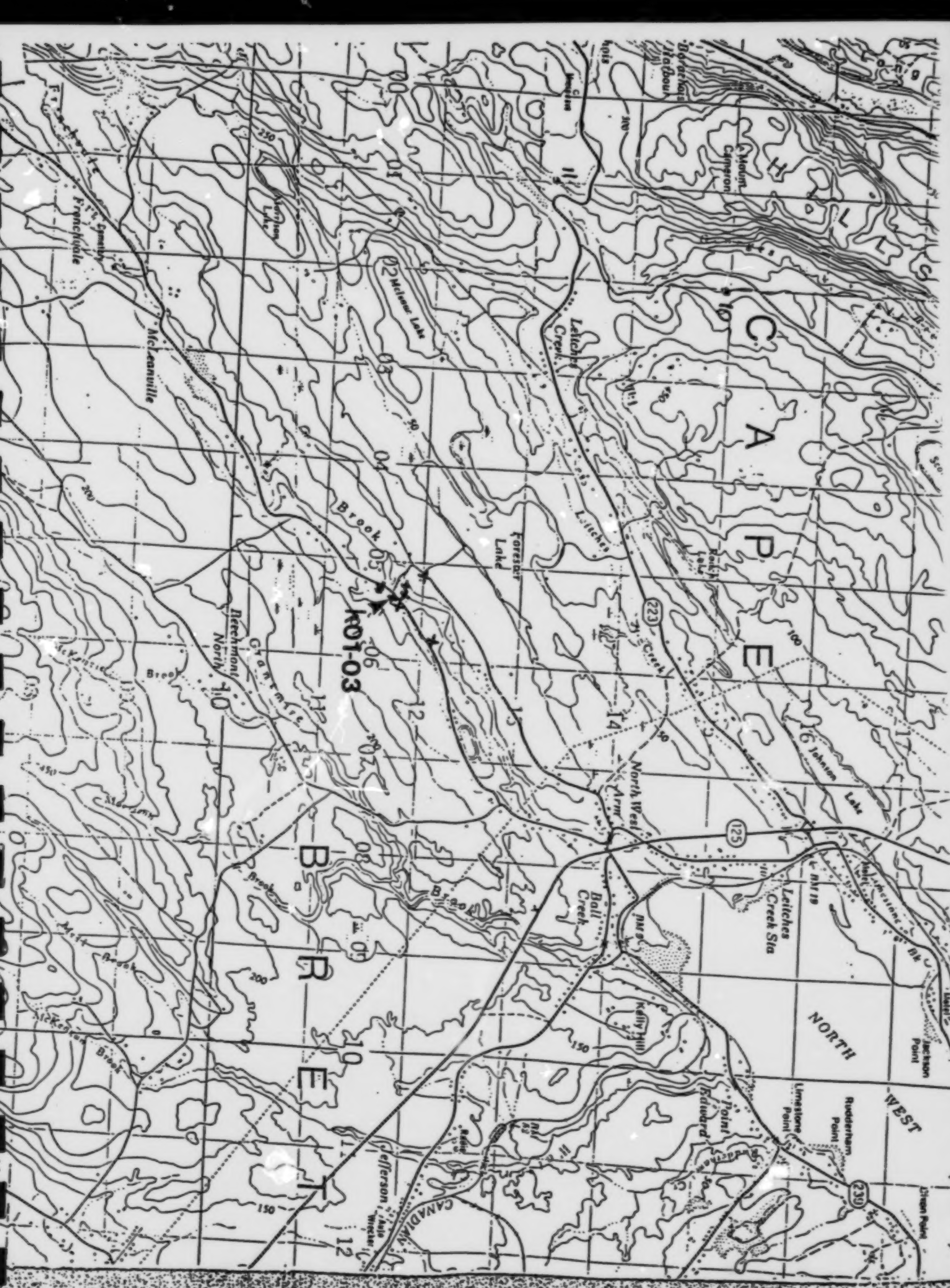
BONDAR CLEGG ATOMIC ABSORPTION
SAMPLE K01-03

ELEMENT	UNITS	
CU	PPM	6140
ZN	PPM	3040
AG	PPM	2.7
PB	PPM	3150

SURVEYS PERFORMED

GEOLOGY, SOIL AND STREAM GEOCHEMICAL, TRENCHING, DRILLING

COMPILED BY :GARTH DEMONT, JUNE, 1989
UPDATED BY :
FIELD CHECKED BY :GARTH DEMONT, OCT., 1989


CAPE BRETON
K01-03
HILLS
Mount Cameron
Leitches Creek
Leitches Creek Sta
Forestar Lake
McLean Lake
Brook
North West Arm
Ball Creek
Kelly Hill
Johnson Lake
Jackson Point
Rudderham Point
Limestone Point
Point Edward
NORTH WEST
Jefferson
Frenchvale
McLeanville
Beechmont North
Grantmire
Mill Brook
McKenzie Brook
CANADIAN
223
125
239
10
12
14
16
100
150
200
250
300

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER** **:K01-31**

OCCURRENCE NAME : FRENCHVALE

LOCATION

COUNTY : CAPE BRETON **CLAIM MAP :**11K\01B **TRACT :** 104 **CLAIM :** E AND F

NORTHING : 5109900 **EASTING :** 699980 **ZONE :** 20

DESCRIPTIVE LOCATION : TAKE THE BALLS CREEK EXIT ON HIGHWAY 125. PROCEED SOUTH ON THE HIGHWAY TOWARDS FRENCHVALE. AT A DISTANCE OF APPROXIMATELY 8KM, TURN WEST (RIGHT) ON A SECONDARY ROAD TOWARDS LEITCHES CREEK. PROCEED ALONG THE ROAD TO A BRIDGE, APPROXIMATELY 2.25KM. FROM THE BRIDGE WALK EAST ALONG THE BROOK. ABUNDANT OUTCROP IS LOCATED ALONG THE BROOK. ON THE SOUTH SIDE OF THE BROOK A BLASTED AREA HAS BEEN DRIVEN IN A SHEARED INTRUSIVE.

SUMMARY DESCRIPTION

MINERALIZATION : CHALCOPYRITE, MALACHITE AND PYRITE
COMMODITY : CU AND FE

STRATIGRAPHIC UNIT : GEORGE RIVER GROUP **AGE :** HADRYNIAN

HOST ROCK : QUARTZITE

STATUS : THE MINERALIZATION IS FOUND IN OUTCROP.A SMALL BLASTED AREA WAS DRIVEN, APPARENTLY ON THE MINERALIZED ZONE.

GEOLOGICAL ENVIRONMENT :

THE OCCURRENCE IS HOSTED BY GEORGE RIVER GROUP ROCKS OF LATE PRECAMBRIAN AGE.

HILL, J.R.:" WITHIN CAPE BRETON ISLAND, CARBONATE BEARING METASEDIMENTARY ROCKS OF PRE-CARBONIFEROUS AGE HAVE HISTORICALLY BEEN CORRELATED WITH THE GEORGE RIVER GROUP. THE GROUP IS A LOOSELY DEFINED, LITHOSTRATIGRAPHIC UNIT COMPRISED OF INTERBEDDED CARBONATE AND CLASTIC METASEDIMENTARY AND MINOR METAVOLCANIC ROCKS, OF VARIABLE METAMORPHIC GRADE AND OF PROBABLE LATE PRECAMBRIAN AGE. THE CARBONATE UNITS RANGE IN COMPOSITION FROM RELATIVELY PURE CRYSTALLINE LIMESTONE AND DOLOSTONE OF VERY LOW METAMORPHIC GRADE, AS IN THE CRAIGNISH HILLS AND NORTH MOUNTAIN AREAS, TO MORE HIGHLY METAMORPHOSED, CALCAREOUS, DOLOMITIC OR SILICEOUS MARBLE FOUND WITHIN THE BOISDALE HILLS SEQUENCE AND IN THE CAPE DAUPHIN-KELLEYS COVE BELT. ASSOCIATED METASEDIMENTARY ROCKS INCLUDE QUARTZITE, IMPURE QUARTZITE AND FELDSPATHIC SANDSTONE WHICH STRATIGRAPHICALLY BRACKET CARBONATE MEMBERS AND, AGAIN ARE OF VARIABLE METAMORPHIC GRADE. ARGILLACEOUS AND VOLCANIC ROCKS ARE OF MORE LIMITED DISTRIBUTION."

REFERENCE DESCRIPTION :

REF 1 :" THE AREA OUTLINED CONTAINS AMPHIBOLITES, DIORITIC ROCKS, COARSELY CRYSTALLINE MARBLES AND METASILTSTONES. BOTH AMPHIBOLITE AND DIORITIC ROCKS HAVE DISSEMINATED PYRITE, PYRRHOTITE AND CHALCOPYRITE.

LOCALITY 1 : THIS LOCALITY REPRESENTS THE BEST DEVELOPED PART OF THE PYRITE HALO IN TH EROCKS OF THE GEORGE RIVER SERIES ALONG THE GRANITE CONTACT. THE PYRITE HALO APPEARS ONLY IN ARGILLACEOUS AND SILICEOUS ROCKS. OTHER THAN PYRITE, ADDITIONAL SULPHIDES ARE SPARSE.

LOCALITY 2 HAS SIGNIFICANT AMOUNTS OF CHALCOPYRITE IN THE ROCKS. THE EXTENT AND CONTROLS OF MINERALIZATION WARRANT FURTHER STUDIES."

FIELD DESCRIPTION :

A SHORT ADIT LIKE OPENING HAS BEEN MADE IN A ROCK FACE LOCATED ON THE SOUTH SIDE OF THE BROOK. IT IS APPROXIMATELY 1 METRE BY 1 METRE AND 2 METRES DEEP. IT WAS DRIVEN IN A BRECCIATED INTRUSIVE? UNIT.

ROCK TYPE 1 : APPROXIMATELY 10 METRES WEST OF THE ADIT IS A RUSTY ZONE COMPOSED OF A BRECCIATED GRANITIC UNIT. A HEAVY REDDISH IRON OXIDE STAIN COATS THE OUTCROP AND MAKES IT MORE VISIBLE ON THE GROUND.THE CLASTS ARE A PINKISH-ORANGE COLOUR. THE MATRIX IS COMPOSED OF CRUSHED QUARTZ AND A WHITISH KAOLIN TYPE MATERIAL. MINOR AMOUNTS OF PYRITE IS

DISSEMINATED IN THE CLASTS.(SAMPLE K01-31(02))

ROCK TYPE 2: GRAB SAMPLE :THIS SAMPLE WAS TAKEN FROM THE ROOF OF THE OPENING (ADIT). IT CONSISTS OF A SILICEOUS GREY ROCK WITH PINK CLASTS. THE CLASTS SHOW A LARGE NUMBER OF MICRO-FRACTURES. THE MATRIX APPEARS TO BE COMPOSED OF PULVERIZED CLAST FRAGMENTS IN A POSSIBLE LIMY SILT OR CLAY MATRIX. THE ROCK IS FRIABLE DUE TO THE BRECCIATION. MINOR DISSEMINATED PYRITE IS FOUND AS DISSEMINATIONS IN THE CLASTS AND MATRIX. (NOTE THE MINERALIZATION IN THE MATRIX APPEARS TO BE LIBERATED FROM THE CLASTS DURING THE BRECCIATION.) THE CLASTS APPEAR TO BE A QUARTZITE OR RHYOLITE. (SAMPLE K01-31(01))

ROCK TYPE 3: GRAB SAMPLE: THIS SAMPLE IS TAKEN FROM AN OUTCROP LOCATED APPROXIMATELY 15 METRES EAST OF THE WORKINGS. THE EXPOSURE CONSISTS OF A REDDISH GOSSANIFEROUS ZONE. THE SAMPLE IS COMPOSED OF A VERY FINE GRAINED GRANULAR ROCK (PROBABLE QUARTZITE). THE WEATHERED SURFACE IS REDDISH BLACK AND IN PLACES APPROACHES A BOXWORK GOSSAN. THE ROCK CONTAINS POORLY DEFINED BANDS OF SUB-MASSIVE SULPHIDES. THE MINERALIZATION APPEARS TO BE PRIMARILY PYRITE AND POSSIBLY MINOR CHALCOPYRITE. (SAMPLE K01-31(01))

THE RELATIONSHIP OF THE THREE ROCK TYPES HAS NOT BEEN DEFINED. THE FIRST TWO ARE BRECCIATED AND MAY IN FACT BE THE SAME ROCK TYPE. CHEMICAL ANALYSES SHOULD DEFINE THE MINERALIZATION IN THE QUARTZITE.

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\01 SYDNEY, 1:50,000

MILLIGAN, G.C, GEOLOGY OF THE BOISDALE HILLS, 1:4800 1963, (IN NSDME MEMOIR 7)

BIBLIOGRAPHY :

NSDME AR 11K\01B 07-C-15 (01) BASE METALS, BOISDALE HILLS

MILLIGAN, G.C.: GEOLOGY OF THE GEORGE RIVER SERIES, CAPE BRETON, NSDME MEMOIR 7, 1970

HILL, J.R: FOLLOW UP GEOLOGY AND GEOCHEMISTRY OF METACARBONATE FORMATIONS AND THEIR CONTAINED MINERAL OCCURRENCES, CAPE BRETON ISLAND, GSC OF 2077, 1989 (GENERAL GEOLOGY DESCRIPTION ONLY)

REMARKS :

THE LOCATION WAS CONFIRMED BY FIELD CHECK BUT THE DESCRIPTION GIVEN IN THE REFERENCE DID NOT MATCH WHAT EXISTED ON THE GROUND.THIS AREA WARRANTS A FURTHER INVESTIGATION. SUBSTANTIAL AMOUNTS OF SULPHIDE EXIST IN THE QUARTZITE. THE GEOCHEMICAL ANALYSIS INDICATED ANOMALOUS CO IN SAMPLE 1 AND SLIGHTLY ANOMALOUS AU IN BOTH SAMPLES. AS SAMPLE 1 IS A MIXTURE OF THE BRECCIA AND THE PYRITE RICH QUARTZITE. IT MAY NOT REPRESENT A TRUE ASESSSMENT OF THE MINERALIZATION IN THE QUARTZITE.

VERIFICATION :

THE OCCURRENCE IS MODERATELY WELL DESCRIBED IN THE LITERATURE AND FIELD CHECKED BY NSDME.

ASSAY DATA

NSDME 1990

BONDAR CLEGG AU+33

SAMPLE		K01-31(01)	K01-31(02)
ELEMENT	UNITS		
NA	PCT	0.56	2.20
SC	PPM	4.4	8.0
CR	PPM	100	390
FE	PCT	11.0	1.5
CO	PPM	160	<10
NI	PPM	52	<20
ZN	PPM	<200	<200
AS	PPM	1	<1
SE	PPM	<10	<10
BR	PPM	<1	<1
RB	PPM	28	100
ZR	PPM	<500	<500
MO	PPM	4	<2
AG	PPM	<5	<5
CD	PPM	<10	<10
SN	PPM	<200	<200
SB	PPM	<0.2	<0.2
TE	PPM	<20	<20
CS	PPM	<1	1
BA	PPM	130	360
LA	PPM	12	9
CE	PPM	32	15
SM	PPM	2.0	1.6
EU	PPM	<2	<2
TB	PPM	<1	<1
YB	PPM	<5	<5
LU	PPM	<0.5	<0.5
HF	PPM	<2	<2
TA	PPM	<1	<1
W	PPM	<2	<2
IR	PPB	<100	<100
AU	PPB	7	13
TH	PPM	2.9	2.9
U	PPM	1.3	2.4
WT	g	14.39	12.43

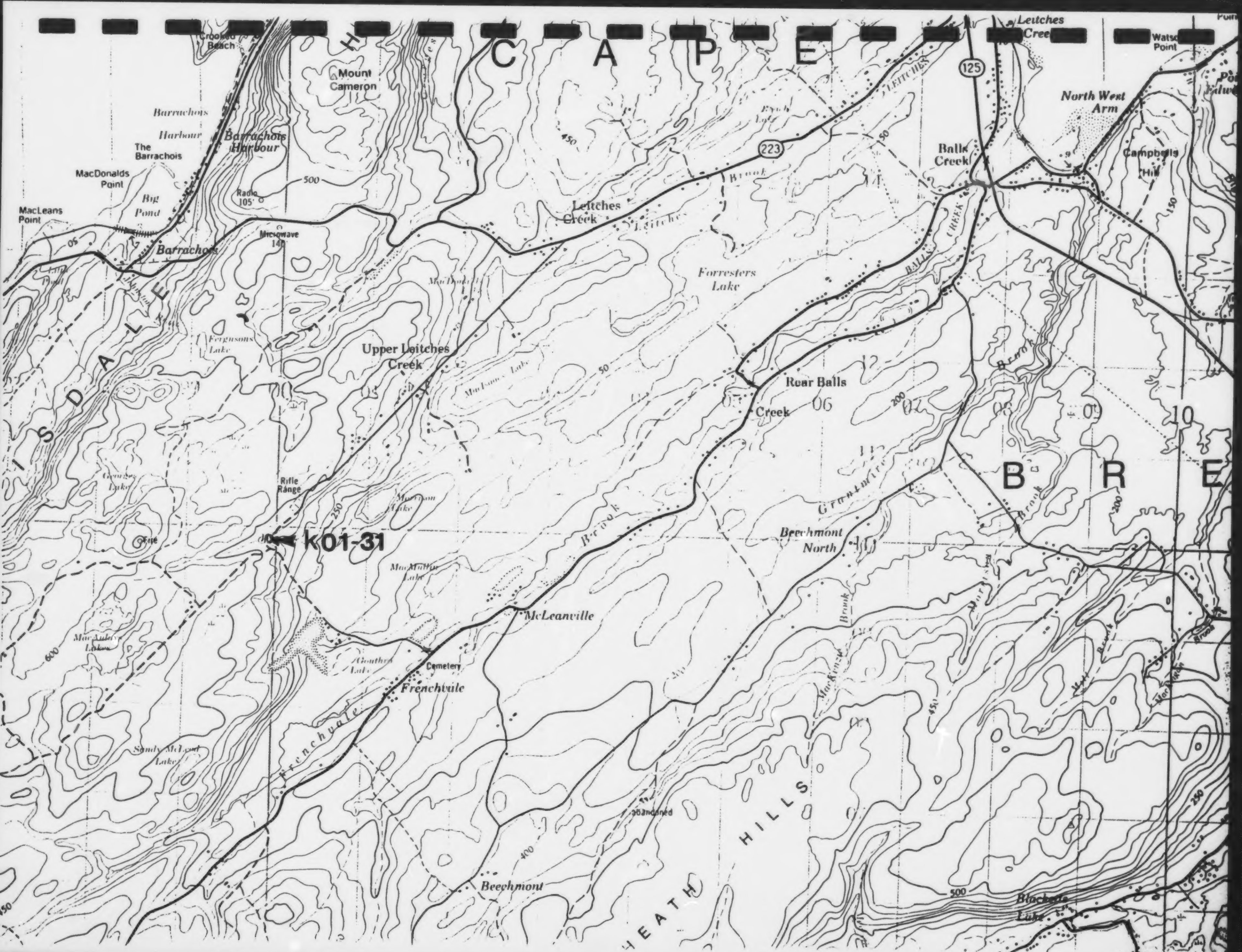
SURVEYS PERFORMED

GEOLOGY, STREAM SEDIMENT GEOCHEMICAL

COMPILED BY :GARTH DEMONT, JULY, 1989

UPDATED BY :GARTH DEMONT JAN,1991

FIELD CHECKED BY :GARTH DEMONT AND JANETTE FREEMAN OCT 1989


C A P E
B R E
I S D A L E
H
HEATH HILLS
K01-31
Crooked Beach
Mount Cameron
Barrachois Harbour
Barrachois Harbour
The Barrachois
MacDonalds Point
Big Pond
MacLeans Point
Barrachois
Radio 105'
Microwave 140
500
Leitches Creek
Leitches Creek
125
223
North West Arm
Balls Creek
Campbells Hill
Watson Point
Forresters Lake
Fergusons Lake
Upper Leitches Creek
MacLeans Lake
Rear Balls Creek
Rifle Range
Georges Lake
Morrison Lake
MacMullin Lake
Beechmont North
Grantmire Brook
Brook
McLeanville
MacAulays Lakes
Gouthros Lake
Cemetery
Frenchvale
Frenchvale
Sandy McLeod Lake
Abandoned
Beechmont
MacKenzie Brook
Morrison Brook
Blacketts Lake
Balls Creek
Leitches
600
450
250
200
150
50
400
06
07
08
09
10
11
12

OCCURRENCE NAME : MASKELLS HARBOUR

LOCATION

COUNTY : VICTORIA **CLAIM MAP :**11K\02B **TRACT :** 26 **CLAIM :** C

NORTHING : 5099380 **EASTING :** 671500 **ZONE :** 20

DESCRIPTIVE LOCATION : THE OCCURRENCE IS LOCATED IMMEDIATELY NORTH OF THE ROAD WHICH RUNS UP THE NORTH SIDE OF MASKELLS HARBOUR. THE ADIT AND SHAFT DUMPS ARE VISIBLE ON THE NORTH SIDE OF THE ROAD APPROXIMATELY 1.25 KM FROM THE JUNCTION OF THIS ROAD WITH THE WASHABUCK HIGHWAY.

SUMMARY DESCRIPTION

MINERALIZATION : GOLD, SILVER, GALENA, CHALCOPYRITE, SPECULARITE, BORNITE AND MALACHITE **COMMODITY :** AU, AG, PB, CU AND FE

STRATIGRAPHIC UNIT : UNDEFINED **AGE :** DEVONIAN?

HOST ROCK : QUARTZITE AND HORNBLENDE ROCK

STATUS : THE MINERALIZATION IS FOUND IN AN OLD ADIT AND A 4.6 METRE SHAFT WHICH WERE SUNK IN THE 1860'S.

GEOLOGICAL ENVIRONMENT :

FLETCHER (1876-77) DESCRIBES THE ROCKS AS :" THE WASHABUCK HILLS CONSIST OF GNEISS, MICA SCHIST, SYENITE, DIORITE, HORNBLENDE ROCK, QUARTZITE AND FELSITES ; ALL MORE OR LESS FOLIATED, AND SOMETIMES IN EXCEEDINGLY THIN LAMINAE."

THE AREA WAS MAPPED AGAIN BY D.G. KELLEY BETWEEN 1952 AND 1954. HE MAPPED THE AREA AS BEING COMPOSED OF QUARTZ MONZONITE AND GRANODIORITE WITH NUMEROUS INCLUSIONS OF GEORGE RIVER GROUP, AND COMPOSITE GNEISS CONTAMINATED GRANITIC ROCK.

REFERENCE DESCRIPTION :

HOW 1868 :" IN THE SPRING OF 1865 MR. A. CAMERON, OF BADDECK, BROUGHT ME SOME SPECIMENS FOR EXAMINATION ONE OF WHICH I FOUND TO BE VERY RICH IN SILVER, THE METALLIC ORE WAS IN FACT SULPHIDE OF SILVER, IT WAS IN A QUARTZ ROCK WHICH ALSO CONTAINED GALENA. MR CAMERON AFTERWARDS HAD LARGE SAMPLES ASSAYED IN BOSTON, AND THE PROPERTY WAS SURVEYED BY PROF. HIND, FROM WHOSE REPORT I MAKE SOME EXTRACTS. " THE SILVER MINE- THIS VEIN HAS BEEN OPENED TO A VERTICAL DEPTH OF 15 FEET NEAR THE JUNCTION OF A BED OF QUARTZITE AND COARSE HORNBLENDIC ROCK WITH EPIDOTE, ABOUT 1\3 MILE FROM THE SOUTHWEST BOUNDARY OF LICENSE TO SEARCH NO9, ON THE PENNINSULAR SOUTHWEST OF BADDECK FORMING PART OF THE LITTLE BRAS D'OR LAKE, VICTORIA COUNTY. THE VEIN OCCUPIES A FISSURE OF VARIABLE WIDTH (FROM HALF AN INCH TO FOUR INCHES AS FAR AS TRACED) RUNNING NEARLY AT RIGHT ANGLES TO THE STRIKE OF THE ROCK. SEVERAL SMALLER VEINS RUN IN TO IT. THE ORE TAKEN FROM THIS VEIN ASSAYED BY DR. HAYES, OF BOSTON, GAVE THESE RESULTS : ONE TON 2000LB WOULD AFFORD 18OZ.,9DWT,3GRS OF GOLD, AND 97OZ 10DWT. 4GRS. OF SILVER, WORTH TOGEATHER $508.61 PER TON OF ORE EQUAL TO THE SAMPLE EXAMINED. FROM INFORMATION OBTAINED ON THE SPOT THE ARGENTIFEROUS AND AURIFEROUS ORE, APPEARS TO BE PRESENT IN THE VEINS IN POCKETS AND NOT EVENLY DISTIBUTED, HENCE IT IS PROBABLE THAT IMPORTANT AGGREGATES OF THESE METALS MAY BE REACHED. THE ANGLE AT WHICH THE VEIN IS INCLINED IS LOW (27DEG), HENCE IT IS NOT PROBABLE THAT IT WILL ATTAIN CONSIDERABLE WIDTH, YET IF IT MAINTAINS ITS PRESENT AVERAGE THICKNESS, NOTWITHSTANDING ITS POCKETY NATURE, THE EXTRAORDINARY RICHNESS OF YIELD BOTH OF GOLD AND SILVER MAKES IT VALUABLE.""

FLETCHER 1876 :" IN THIS VEIN A RICH POCKET OF GALENA , CONTAINING GOLD, SULPHIDE OF SILVER, COPPER, AND IRON PYRITES, PRODUCED AT THE RATE OF 18OZ, 9DWT, 3GRS OF GOLD AND 97OZ 10DWT 14GRS OF SILVER TO THE TON. SCATTERED THROUGH THE HORNBLENDIC AND QUARTZOSE ROCKS IN WHICH THE VEIN IS CONTAINED ARE GRAINS OF COPPER PYRITES AND SPECULAR IRON ORE."

PROSPECTING IN 1902 LOCATED A RICH FIND OF GOLD IN QUARTZ IN THIS AREA.(INDUSTRIAL ADVOCATE) PROSPECTING IN 1955 LOCATED AN ADIT ON THE NORTH SIDE OF THE PARLIAMENT POINT (PONYS POINT) ROAD NEAR AN EAST FLOWING BROOK.(AR CLOSURE 3(03)) CHALCOPYRITE WAS NOTED IN BASALT IN THE ADIT AND IN THE BROOK. (AR CLOSURE 3(03)) THE MINERALIZATION IS LOCATED NEAR A GRANODIORITE SILL. (AR CLOSURE 3(03))

FIELD DESCRIPTION :

NSDME 1989 AND 90:

AN OLD TRENCHED AREA LEADS UP TO A ROCK FACE WHICH IS APPROXIMATELY 7 METRES HIGH. A SHORT ADIT IS LOCATED AT THE BASE OF THE CLIFF. THE ADIT ENTRANCE IS APPROXIMATELY 1 METRE BY 1 METRE. THE ADIT STRIKES 036 MAGNETIC AND HAS A DEPTH OF APPROXIMATELY 4 METRES. AT THE TIME OF THIS FIELD CHECK IN 1989 IT WAS STILL POSSIBLE TO ENTER THE ADIT.

AN OLD SHAFT IS LOCATED AT THE EAST END OF THE ROCK FACE. THE SHAFT WAS FILLED AT THE TIME OF THE FIELD CHECK. THE SHAFT IS APPROXIMATELY 1.2 METERS BY 1.2 METRES.

THE ADIT APPEARS TO BE DRIVEN IN A MAFIC DYKE. MINOR AMOUNTS OF DISSEMINATED CHALCOPYRITE AND PYRITE WERE NOTED IN WHITE QUARTZ PODS IN THE ADIT. THE PODS ARE UP TO 1 METRE LONG WITH WIDTHS OF UP TO 8CM. THE PODS PINCH OUT ON BOTH ENDS. THERE DOES NOT APPEAR TO BE ANY FIXED DIRECTION FOR THE PODS.

THE ADIT IS DRIVEN IN A ROCK DESCRIBED BY HOW AS A COARSE HORNBLENDIC ROCK WITH EPIDOTE. THE SHAFT APPEARS TO BE IN A GREYISH FINE GRAINED QUARTZITE WHICH HAS BEEN ALTERED BY THE INTRUSION OF THE DYKE. THE CONTACT WAS NOT VISIBLE AT THE TIME OF THE FIELD CHECK IN 1989.

SAMPLES

K02-03(01) : GRAB SAMPLE FROM THE ADIT. GREYISH MAFIC INTRUSIVE (GABBRO?) WITH GREEN EPIDOTE ALTERATION. 2-3% DISSEMINATED SPECULARITE : LESS THAN 1% DISSEMINATED PYRITE AND CHALCOPYRITE : MINOR AMOUNTS BORNITE?

K02-03(02) : GRAB SAMPLE FROM THE SHAFT WALL. GREY VERY FINE GRAINED QUARTZITE? ALTERED BY DYKE. WEAK FOLIATION. LESS THAN 1% DISSEMINATED SPECULARITE.

K02-03(03) : GRAB SAMPLE OF QUARTZ FROM THE DUMP. NO VISIBLE SULPHIDE.

THE IDENTIFIABLE MINERALIZATION CONSISTED OF BORNITE, CHALCOPYRITE, MALACHITE, SPECULARITE AND PYRITE. THE MINERALIZATION IS FOUND AS DISSEMINATIONS IN THE DYKE AND IN THE QUARTZ PODS. NO INDICATION OF THE HIGH GRADE SILVER AND GOLD VEIN COULD BE SEEN AT THE OLD WORKINGS.

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\02 BADDECK, 1:50.000

GSC MAP 124 GEOLOGY, FLETCHER, ONE INCH TO ONE MILE, 1876

GSC MAP 1211A D.G. KELLEY, ONE INCH TO ONE MILE, 1952

BIBLIOGRAPHY :

HOW,H. : THE MINERALOGY OF NOVA SCOTIA, 1868, P59-60

FLETCHER, H. : GSC REPORT OF PROGRESS 1876-77, P.405,407, 451

NSDME AR 11K\02 +3+4 CLOSURE 3 (01)(02)(03) BASE METALS INVERNESS AND VICTORIA COUNTY

INDUSTRIAL ADVOCATE, NEWS NUGGETS, V.7,NO12, 1902 (MRA 322)

REMARKS :

WHEN YOU EXAMINE THE INFRARED PHOTO OF THIS AREA (PHOTO 76322-140) AN INTERESTING STRUCTURE APPEARS. AN ANTICLINAL STRUCTURE IS VISIBLE SOUTH OF MASKELLS HARBOUR. THE ANTICLINE IS ALSO INDICATED BY THE STRIKE AND DIP ON THE GSC GEOLOGY MAP (MAP 1211A). THE ROUGH TRACE OF THE ANTICLINAL AXIS RUNS THROUGH THE OLD WORKINGS. HOWEVER, THE ANTICLINE HAS BEEN TRUNCATED BY THE INTRUSION BEFORE IT REACHES THE WORKINGS. THE ANTICLINE HAS ALSO BEEN CUT ON ITS WESTERN EDGE BY A FAULT. THE ROCKS IN THE AREA OF THE ANTICLINE HAVE BEEN MAPPED AS UNDIVIDED HORTON. CONSIDERING THAT THE ANTICLINE HAS BEEN CUT BY A FAULT WHICH DEFINES THE HORTON CONTACT IT IS DIFFICULT TO BELEIVE THAT THESE SEDIMENTS ARE ACTUALLY HORTON. THE ANTICLINE IS ALSO CUT BY THE INRUSION WHICH IS BELEIVED TO BE PRE HORTON IN AGE. THE GEOLOGY IS POORLY MAPPED IN THIS AREA . THERE IS ACTUALLY MORE SEDIMENTARY ROCK AND VOLCANICS THAN THE GEOLOGY MAPS INDICATE.

THIS OCCURRENCE IS PROBABLY GENETICALLY RELATED TO THE VEIN LOCATED AT BURNT POINT (K02-04). THE VEIN AT BURNT POINT CARRIES BOTH AU AND AG VALUES. THE OCCURRENCES ARE REPORTED TO BE IN THE SAME GEOLOGICAL SETTING SO IT MAY GIVE CREDENCE TO THE RICH VEIN LOCATED AT THIS LOCATION, EVEN THOUGH NO VEIN MATERIAL IS VISIBLE ON THE DUMPS.

VERIFICATION :

THE OCCURRENCE IS WELL DESCRIBED IN THE LITERATURE AND FIELD CHECKED BY NSDME IN 1989 AND REVISITED IN 1990.

ASSAY DATA

DR HAYES BOSTON 1868
18OZ 9DWT 3GRS AU AND 97OZ 10DWT 14GRS AG PER TON ORE

NSDME 1990
BONDAR CLEGG ATOMIC ABSORPTION

SAMPLE NUMBER		K02-03(01)
ELEMENT	UNIT	
CR	PPM	86
CO	PPM	30
CU	PPM	649
AG	PPM	0.2
BI	PPM	<1

BONDAR CLEGG AU+33

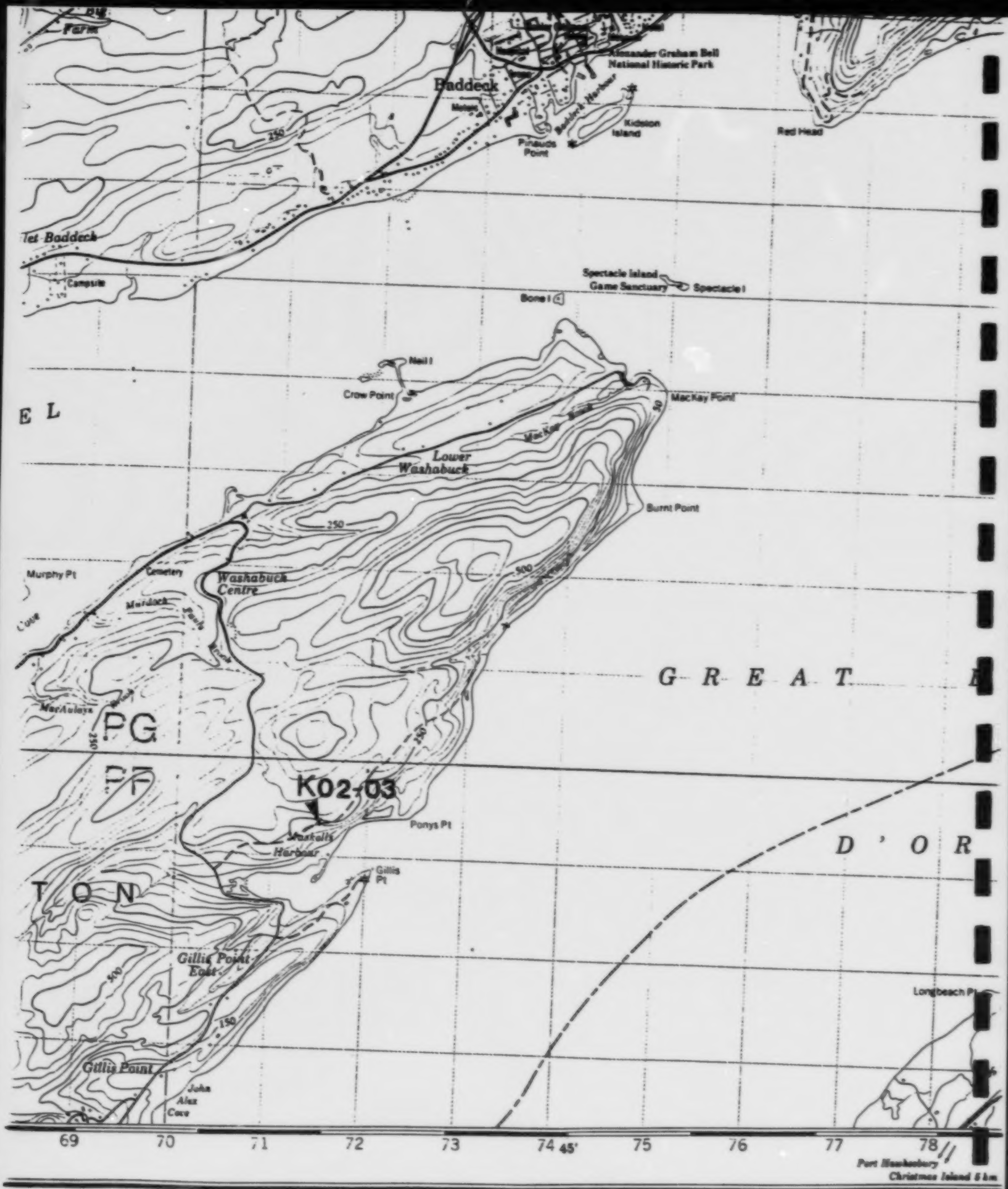
SAMPLE NUMBER		K02-03(01)	K02-03(02)	K02-03(03)
ELEMENT	UNITS			
NA	PCT	0.82	1.90	<0.05
SC	PPM	46.0	35.0	0.6
CR	PPM	170	370	570
FE	PCT	10.0	6.8	<0.5
CO	PPM	55	35	<10
NI	PPM	52	<20	<20
ZN	PPM	210	<200	<200
AS	PPM	2	1	<1
SE	PPM	<10	<10	<10
BR	PPM	<1	<1	<1
RB	PPM	36	41	<10
ZR	PPM	<500	<500	<500
MO	PPM	<2	<2	<2
AG	PPM	<5	<5	<5
CD	PPM	<10	<10	<10
SN	PPM	<200	<200	<200
SB	PPM	0.4	0.3	<0.2
TE	PPM	<20	<20	<20
CS	PPM	<1	1	<1
BA	PPM	<100	360	<100
LA	PPM	10	23	<5
CE	PPM	25	59	<10
SM	PPM	5.2	7.3	<0.2
EU	PPM	<2	<2	<2
TB	PPM	<1	<1	<1
YB	PPM	<5	<5	<5
LU	PPM	<0.5	<0.5	<0.5
HF	PPM	<2	2	<2
TA	PPM	<1	<1	<1
W	PPM	3	<2	<2

IR	PPB	<100	<100	<100
AU	PPB	44	5	<5
TH	PPM	3.0	4.7	1.0
U	PPM	0.9	0.9	<0.5
WT	g	14.56	15.16	12.60

SURVEYS PERFORMED

GEOLOGY, SHAFT SUNK (1860'S), AEROMAGNETIC, PROSPECTING

COMPILED BY :GARTH DEMONT, MARCH, 1989
UPDATED BY :GARTH DEMONT, NOV, 1990
FIELD CHECKED BY :GARTH DEMONT AND JANETTE FREEMAN, OCT, 1989


Farm
Baddeck
Alexander Graham Bell National Historic Park
Baddeck Harbour
Kidston Island
Pinauds Point
Red Head
250
Baddeck
Campsite
Spectacle Island Game Sanctuary
Spectacle I
Bone I
Neil I
Crow Point
MacKay Point
50
E L
Lower Washabuck
Burnt Point
250
500
Murphy Pt
Cemetery
Washabuck Centre
Cove
Murdock
GREAT
PG
PF
250
K02-03
Ponys Pt
Washabuck Harbour
Gillis Pt
D'OR
TON
Gillis Point East
500
150
Gillis Point
John Alex Cove
Longbeach Pt
69
70
71
72
73
74
45'
75
76
77
78
Port Hawkesbury
Christmas Island 5 km

BADDECK

NOVA SCOTIA

Scale 1:50 000 Échelle

Miles 1 0 1 2 3 Miles

OCCURRENCE NAME : BURNT POINT

LOCATION

COUNTY : VICTORIA **CLAIM MAP :**11K\02B **TRACT :** 48 **CLAIM :** G

NORTHING : 5101480 **EASTING :** 673380 **ZONE :** 20

DESCRIPTIVE LOCATION : TRAVEL TO THE END OF THE MASKELLS HARBOUR ROAD.(PAST THE HOUSE AND BARN) THIS ROAD RUNS UP THE NORTH SIDE OF MASKELLS HARBOUR FROM THE WASHABUCK ROAD. THE ROAD ENDS IN A FIELD. (NOTE THE ROAD DOES NOT RUN TO THE BROOK AS SHOWN ON THE MAPS OF THE AREA). FROM THE END OF THE ROAD TRAVEL EAST TO HIT THE BROOK. WALK SOUTH ALONG THE BROOK TO THE SHORE OF THE LAKE. STARTING FROM THE EAST BANK OF THE BROOK, TRAVEL EAST ALONG THE LAKE SHORE (WATCH THE TIDE) FOR 357 METRES. THE VEIN IS VISIBLE IN THE CLIFF AT A HEIGHT OF APPROXIMATELY 20 METRES ABOVE THE LAKE SHORE.

SUMMARY DESCRIPTION

MINERALIZATION : GALENA, CHALCOPYRITE, PYRITE, SILVER, GOLD AND SPHALERITE **COMMODITY :** AG, AU, PB, ZN, FE AND CU

STRATIGRAPHIC UNIT : UNDEFINED **AGE :** DEVONIAN ?

HOST ROCK : QUARTZITE AND HORNBLENDE ROCK

STATUS : THE MINERALIZATION OCCURS IN OUTCROP IN THE CLIFF ALONG THE LAKE SHORE.

GEOLOGICAL ENVIRONMENT :

FLETCHER 1876 :"

SECTION OF THE ROCKS FROM BURNT POINT TO BOULACET HARBOUR.(MASKELS HARBOUR)

1)CARBONIFEROUS ROCKS, INCLUDING GREY, HARD. COMPACT CONGLOMERATE, CHIEFLY COMPOSED OF PEBBLES OF CLEAR QUARTZ : RED CONGLOMERATE, WITH PEBBLES OF DIFFERENT KINDS, VEINED WITH WHITE CALCSPAR IN ALL DIRECTIONS ; COARSE, GREY SANDSTONE, RED MARL, ARENACEOUS BITUMINOUS, SOMEWHAT CRYSTALLINE, AND IN PLACES RADIATED, CONTAINING CONE IN CONE CONCRETIONS OF IRON PYRITES.

2) BLOCKS OF RED AND GREY SYENITE, STREAKED WITH BRIGHT-GREEN EPIDOTE, FINE GRAINED HORNBLENDE ROCK, BANDED QUARTZITE AND PORPHRY.

3) RED SYENITE; THE QUARTZ, FELDSPAR AND HORNBLENDE WELL MIXED.

4) BROWNISH-GREY FINE FELSITE, MUCH DECOMPOSED

5) GREY SYENITE, SOMETIMES MIXED WITH RED, AND CONTAINING LARGE VEINS OF QUARTZ. THE COMPONENT MINERALS ARE SO INTIMATELY BLENDED AS TO BE ALMOST INDISTINGUISABLE. CLIFFS ARE THIRTY FEET HIGH.

6) A ROCK COMPOSED ESSENTIALLY OF HORNBLENDE AND QUARTZ, CONTAINING SCALES OF MICA, AND PASSING IN PLACES INTO GREY SYENITE.

7) RED SYENITE AND LAMINATED, STEEL GREY, FINELY CRYSTALLINE QUARTZITE, SOME TIMES MICACEOUS.

8) GREY AND RED SYENITE, OFTEN LARGELY COMPOSED OF HORNBLENDE.

9) RED AND GREY BANDED SYENITE, AND DARK GREY QUARTZITE, GREATLY CONTORTED, AND CONTAINING SCALES OF SILVERY MICA IN ABUNDANCE.

10) GREY MICACEOUS, LAMINATED QUARTZITE, AND AN INTIMATE MIXTURE OF QUARTZ AND HORNBLENDE, HOLDING CRYSTALS SOMETIMES A QUARTER OF AN INCH THICK IN LENGTH OCCUR AMONG THESE ROCKS. THE VEINS CONTAIN SCALES OF WHITE MICA, AS WELL AS TRACES OF GALENA, COPPER AND IRON PYRITES: ONE OF THES WAS MINED TO SOME EXTENT A FEW YEARS AGO. CLIFFS OF SEVENTY OR EIGHTY FEET HIGH.

11) QUARTZ AND RED SYENITE, OFTEN MICACEOUS

12) THICK BEDDED, RED AND GREY SYENITE

13) MEASURES CONCEALED. MOUTH OF A LARGE BROOK.

14) STEEL GREY QUARTZITE, MIXED WITH HORNBLENDE, AND STAINED WITH HEMATITE. CLIFFS

15) GYPSUM

THE AREA WAS MAPPED BY D.G KELLEY OF THE GSC IN 1952-54. HE MAPPED THE AREA AS BEING COMPOSED OF QUARTZ MONZONITE AND GRANODIORITE WITH NUMEROUS

INCLUSIONS OF GEORGE RIVER GROUP, AND COMPOSITE GNEISS CONTAMINATED GRANITIC ROCKS.

REFERENCE DESCRIPTION :

HOW 1868: " IN THE SPRING OF 1865 I RECEIVED SEVERAL SAMPLES FROM MR. CAMERON SOME OF WHICH PROVED TO CONTAIN SILVER ALSO BUT NOT IN SUCH QUANTITY AS THE PROCEEDING. THE METALIC MINERALS WERE GALENA, IRON AND COPPER PYRITES, AND A LITTLE BLENDE SOME OF WHICH PROVED TO CONTAIN A GOOD DEAL OF CADMIUM ; GOLD WAS FOUND IN THE QUARTZOSE MATRIX OF THE MINERALS. THE REPORT OF PROF. HIND, IN REFERRING TO THE GALENA SAYS ; "THE ARGENTIFEROUS GALENA VEINS ARE SITUATED IN THAT PART OF THE METAMORPHIC NUCLEUS WHICH, IN THE FORM OF HIGH CLIFFS, CONSTITUTES PART OF THE COAST OF THE PENNINSULA ON LITTLE BRAS D'OR. THE ROCKS CONSIST OF ALTERNATING BEDS OF QUARTZITE, DIORITE, FINE HORNBLENDIC SLATE, AND COARSE HORNBLENDIC SCHIST. THE MAIN CLIFFS VEIN IS OF UNEVEN THICKNESS, AND WHERE EXPOSED ON THE FACE OF THE CLIFF, ABOUT 65 FEET ABOVE TIDE, IT IS FROM 12 TO 16 INCHES THICK. IT IS VERY FERRUGINOUS AND CONTAINS THIN SEAMS OF ARGENTIFEROUS GALENA WITH SMALL POCKETS AND SPECKS OF COPPER ORE AND IRON PYRITES. THE ANALYSIS BY DR. HAYES OF BOSTON OF SPECIMENS FROM THE CLIFF VEIN GAVE FOR THE HIGHEST YIELD 39OZ 10DWT 12GRS, OR $51.38 WORTH OF SILVER TO THE TON. THE ARGENTIFEROUS GALENA DOES NOT APPEAR TO BE UNIFORMLY DISTRIBUTED THROUGH THE VEIN, BUT IS IN PATCHES AND STREAKS.""

FLETCHER 1876 ;" AT THE FORMER PLACE A NUMBER OF IRREGULAR, FERRUGINOUS QUARTZ VEINS, THE LARGEST ABOUT FIFTEEN INCHES THICK, HOLDS TRACES OF ARGENTIFEROUS GALENA, COPPER AND IRON PYRITES. AN ANALYSIS BY DR. HAYES, OF BOSTON, OF SPECIMENS FROM ONE OF THESE VEINS, SHOWS IT TO CONTAIN 39OZ 10DWTS 12GRS OF SILVER TO THE TON."

FIELD DESCRIPTION :

NSDME 1990:

THE VEIN IS LOCATED IN THE CLIFF APPROXIMATELY 20 METRES ABOVE THE BEACH AND 357 METRES EAST OF THE MOUTH OF THE LARGE BROOK. THE FERRUGINOUS QUARTZ VEIN IS EASILY VISIBLE IN THE CLIFF FACE. THE VEIN COULD NOT BE REACHED AS THE CLIFF WAS TOO STEEP SO THE OBSERVATIONS PRESENTED HERE WERE MADE FROM THE BEACH AND FROM SAMPLES OF THE VEIN AND HOST ROCKS WHICH HAD FALLEN ON THE BEACH.

THE ROCKS ON THE SHORE LEVEL CONSIST OF A REDDISH GRANITIC ROCK AND GREEN QUARTZITE. THE GEOLOGY APPEARS TO CHANGE NEAR THE VEIN. A DARK COLOURED ROCK UNDERLIES THE VEIN AND A CREAMY BROWN FELSITIC ROCK OVERLIES IT. THE VEIN APPEARS TO BE DIPPING SOUTHWEST. IT APPEARS TO FOLLOW A CONTACT OR FAULT ZONE BETWEEN THE TWO ROCK TYPES. THE VEIN

APPEARS TO BE BETWEEN 30-60 CM THICK.
WE TRAVERSED UP THE BEACH FOR ANOTHER 1KM. THERE ARE NUMEROUS QUARTZ VEINS EXPOSED BUT NONE APPEAR TO BE MINERALIZED.

SAMPLES
K02-04(01) : GRAB SAMPLE FROM BLOCKS OF THE VEIN MATERIAL ON THE BEACH. WHITE QUARTZ WITH PATCHES OF GALENA AND MINOR PYRITE AND CHALCOPYRITE.

K02-04(02) : HOST ROCK SAMPLES
A) RED GRANITIC ROCK
B) GREYISH GREEN QUARTZITE
C) GREENISH PORPHRITIC MAFIC VOLCANIC
D) CREAM BROWN FELSIC TUFF? DISSEMINATED GALENA? MINERALIZATION

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\02 BADDECK, 1:50,000

GSC MAP 124 GEOLOGY, FLETCHER, ONE INCH TO ONE MILE, 1876

GSC MAP 1211A GEOLOGY, D.G. KELLEY, ONE INCH TO ONE MILE, 1952

BIBLIOGRAPHY :

HOW,H.: THE MINERALOGY OF NOVA SCOTIA, 1868, P60-61

FLETCHER, H.: GSC REPORT OF PROGRESS 1876-77, P406,451

REMARKS :

THE AREA NEEDS TO BE MAPPED AGAIN. THE EXPOSURE ALONG THE BROOK APPEARED TO BE PRIMARILY SEDIMENTARY OR VOLCANIC ROCKS WITH MINOR DYKES. THE ROCKS ARE PORTRAYED ON THE PRESENT MAPS AS BEING PRIMARILY INTRUSIVES, WHICH IS MISLEADING. THIS OCCURRENCE IS PROBABLY LINKED TO THE OCCURRENCE AT MASKELLS HARBOUR (K02-03).

VERIFICATION :

THE OCCURRENCE IS WELL DESCRIBED IN THE LITERATURE AND CONFIRMED IN THE FIELD BY AN NSDME FIELD CHECK.

ASSAY DATA

DR. HAYES OF BOSTON 1860'S

39OZ 10 DWTS 12GRS AG PER TON

NSDME 1990
BONDAR CLEGG AU+33
SAMPLE NUMBER K02-04(01)

ELEMENT	UNITS	K02-04(01)
NA	PCT	<0.05
SC	PPM	<0.5
CR	PPM	790
FE	PCT	1.5
CO	PPM	<10
NI	PPM	<20
ZN	PPM	<200
AS	PPM	3
SE	PPM	<10
BR	PPM	3
RB	PPM	<10
ZR	PPM	<500
MO	PPM	46
AG	PPM	100
CD	PPM	<10
SN	PPM	<200
SB	PPM	15.0
TE	PPM	39
CS	PPM	<1
BA	PPM	<100
LA	PPM	<5
CE	PPM	<10
SM	PPM	<0.2
EU	PPM	<2
TB	PPM	<1
YB	PPM	<5
LU	PPM	<0.5
HF	PPM	<2
TA	PPM	<2
W	PPM	<2
IR	PPB	<100
AU	PPB	6040
TH	PPM	<0.5
U	PPM	<0.5
WT	g	11.93

BONDAR CLEGG ATOMIC ABSORPTION
SAMPLE K02-04(01)

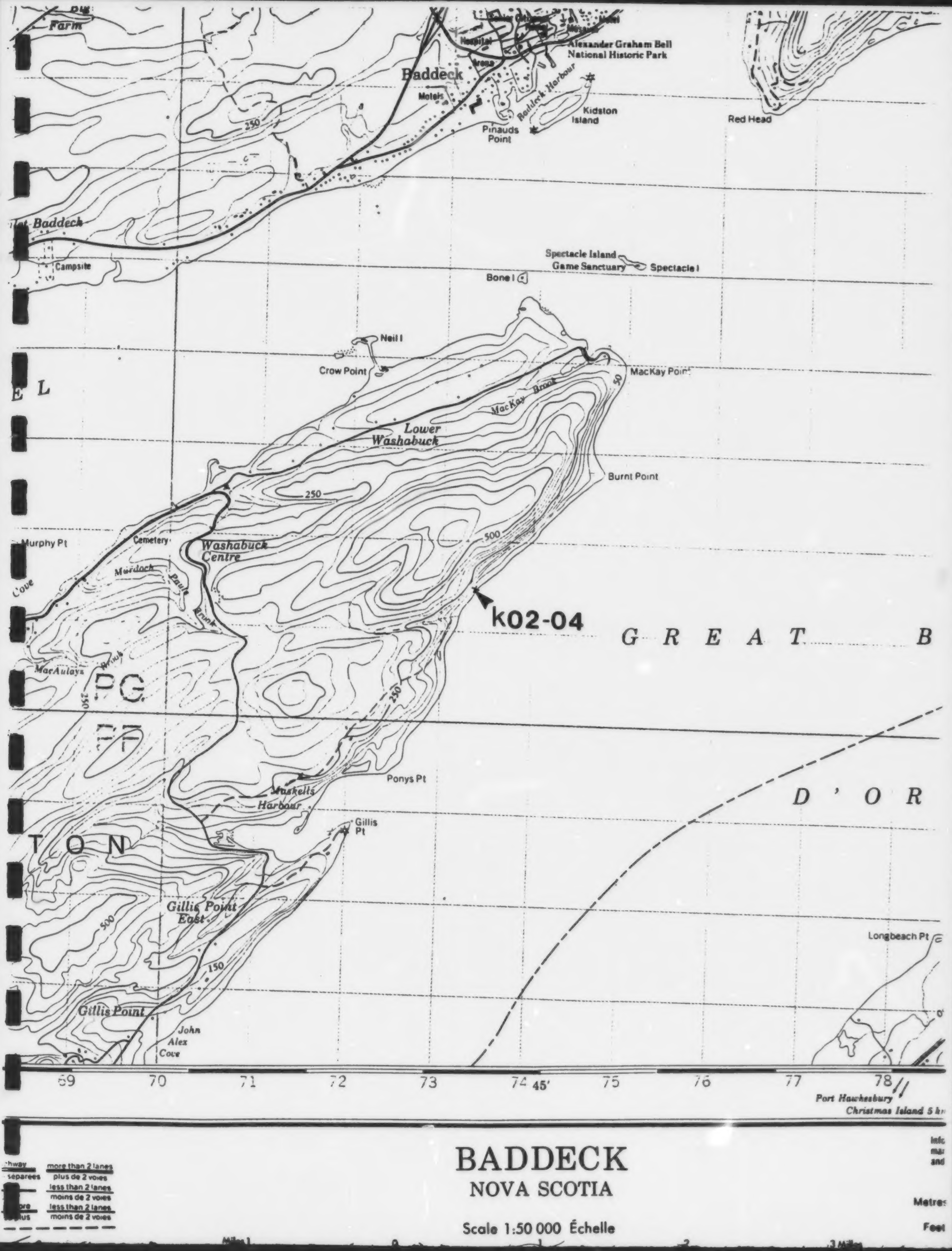
ELEMENT	UNITS	K02-04(01)
CU	PPM	337
ZN	PPM	110
AG	PPM	>100.0
PB	PPM	>20,000
BI	PPM	<1

BONDAR CLEGG FIRE ASSAY AU

SAMPLE	AUPPB RERUN	AUPPB RERUN	AU PPB
K02-04(01)	5500	5050	5730

SURVEYS PERFORMED
GEOLOGY

COMPILED BY :GARTH DEMONT, MARCH, 1989
UPDATED BY :GARTH DEMONT, NOV., 1990
FIELD CHECKED BY :G. DEMONT AND C.WILLIAMS, JULY, 1990


Farm
Baddeck
Hospital
Arena
Motel
Museum
Alexander Graham Bell National Historic Park
Motels
Baddeck Harbour
Kidston Island
Pinauds Point
Red Head
250
Baddeck
Campsite
Spectacle Island Game Sanctuary
Spectacle I
Bone I
Neil I
Crow Point
MacKay Point
50
MacKay Brook
Lower Washabuck
E L
Burnt Point
250
500
Murphy Pt
Cemetery
Washabuck Centre
Murdoch
Paul
Brook
Cove
k02-04
G R E A T B
MacAulays
Brook
250
PG
PF
250
Ponys Pt
Maskells Harbour
D ' O R
Gillis Pt
TON
Gillis Point East
500
150
Gillis Point
John Alex Cove
Longbeach Pt
69
70
71
72
73
74
45'
75
76
77
78
Port Hawkesbury
Christmas Island 5 km
BADDECK
NOVA SCOTIA
Scale 1:50 000 Échelle
more than 2 lanes
plus de 2 voies
less than 2 lanes
moins de 2 voies
less than 2 lanes
moins de 2 voies
Miles 1
0
1
2
3 Miles
Metres
Feet

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER** :K02-06

OCCURRENCE NAME : BEINN SCALPIE

LOCATION

COUNTY : VICTORIA **CLAIM MAP** :11K\02D **TRACT** : 52 **CLAIM** : K

NORTHING : 5117780 **EASTING** : 687450 **ZONE** : 20

DESCRIPTIVE LOCATION : TAKE THE BIG HARBOUR TURNOFF OFF THE TRANSCANADA HIGHWAY, NORTH OF BADDECK. DRIVE ALONG THE ROAD FOR APPROXIMATELY 10.3 KM TO A BRIDGE OVER THE BROOK. AT A DISTANCE OF 245 METRES WEST OF THE BRIDGE, LARGE QUARTZ VEINS OR PODS CAN BE SEEN IN METASEDIMENTS IN OUTCROP IN THE BED OF THE BROOK.

SUMMARY DESCRIPTION

MINERALIZATION : CHALCOPYRITE AND PYRITE **COMMODITY** : CU AND FE

STRATIGRAPHIC UNIT : BARACHOIS RIVER FORMATION AND KELLYS MOUNTAIN DIORITE **AGE** : HADRYNIAN

HOST ROCK : METASEDIMENT

STATUS : THE MINERALIZATION IS REPORTED IN OUTCROP.

GEOLOGICAL ENVIRONMENT :

THE AREA WAS FIRST MAPPED BY H. FLETCHER IN 1882 (GSC MAP 12).A COPPER OCCURRENCE WAS NOTED AS OCCURRING IN THIS BROOK ON FLETCHERS GEOLOGY MAP. THE AREA WAS MAPPED AGAIN BY D.G. KELLEY (GSC MAP 1211A) BETWEEN 1952 AND 1954. KELLEY MAPPED A CONTACT BETWEEN GEORGE RIVER GROUP (PRECAMBIAN) METASEDIMENTARY ROCKS AND DEVONIAN QUARTZ DIORITE OR DIORITE ALONG THIS BROOK.

THE AREA WAS REMAPPED BY BARR ET AL (NSDME PAPER 82-1) IN 1981-82. THE KELLEYS MOUNTAIN PLUTON WAS MAPPED IN MORE DETAIL. THE GEORGE RIVER GROUP AND THE DIORITE COMPLEX ARE DESCRIBED BY BARR ET AL AS :" THE GEORGE RIVER GROUP FORMS MOST OF THE SOUTHERN QUARTER OF KELLEYS MOUNTAIN PENNINSULA WHERE IT CONSISTS PRIMARILY OF META SILTSTONE AND META GREYWACKE. IN THE SOUTHERN PART OF THE PENNINSULA, DIORITIC PHASES OF THE PLUTON AS WELL AS LEUCOGRANITE ARE IN CONTACT WITH META SILTSTONES AND META GREYWACKE OF THE GEORGE RIVER GROUP. A LAMPROPHYRIC DYKE OBSCURES THE CONTACT ON THE SHORE OF OF GREAT BRAS D'OR . HOWEVER XENOLITHS AND INLIERS OF METASEDIMENTARY ROCKS OCCUR IN DIORITE , ALONG THE SHORE TO THE EAST. A COMPLEX INTERMINGLING OF METASEDIMENTARY ROCKS, DIORITE AND LEUCOGRANITE IS EXPOSED IN THE STREAM SECTION IMMEDIATELY NORTH OF THE CONTACT.

THE DIORITIC COMPLEX OCCURS MAINLY IN THE SOUTHERN PART OF THE PENNINSULA BETWEEN THE GNEISS AND THE GEORGE RIVER GROUP. ALTHOUGH QUARTZ DIORITE IS THE DOMINANT ROCK TYPE IN THESE AREAS, THE LITHOLOGY RANGES FROM GABBRO TO DIORITE, TONALITE, GRANODIORITE, QUARTZ MONZODIORITE, AND MINOR QUARTZ MONZONITE. TWO OR MORE OF THESE ROCK TYPES MAY BE PRESENT IN ONE OUTCROP, IN PLACES WITH SHARP CONTACTS AND IN OTHER PLACE GRADATIONAL CONTACTS. THE VARIANTS COULD NOT BE MAPPED AS SEPERATE UNITS. "

REFERENCE DESCRIPTION :

FLETCHER 1884 ;" EAST OF BIG HARBOUR THE BROOKS EXHIBIT HEMATITIC DIORITE, GNEISS AND MICA SCHIST, AMONG WHICH VEINS HOLDING COPPER ORE AND SUPPOSED ALSO TO CARRY GOLD, HAVE BEEN WORKED IN SEVERAL PLACES TO A SMALL EXTENT."

AR 13-Q-39(01);" MINOR DISSEMINATED CHALCOPYRITE MINERALIZATION IN THE METASEDIMENTS. CHALCOPYRITE OCCURS AS TINY SPECKS A FEW MILLIMETERS IN DIAMETER, AND AS VEINLETS LESS THAN 1\4 INCH LONG."

FIELD DESCRIPTION :

LARGE QUARTZ VEINS OR PODS WERE NOTED IN A GREENISH QUARTZITE AT A DISTANCE OF 245 METRES WEST OF THE BRIDGE. MINOR DISSEMINATED PYRITE AND CHALCOPYRITE WERE NOTED IN THE VEINS. THE VEINING OCCURS IN AN AREA OF COMPLEX GEOLOGY, AS BROWNISH COLOURED INTRUSIVE ROCKS ARE IN CONTACT WITH THE QUARTZITE. THE INTRUSIVE IS ALSO VEINED WITH SMALL QUARTZ VEINLETS WHICH CONTAIN MINOR AMOUNTS OF DISSEMINATED PYRITE AND CHALCOPYRITE.

A TRAVERSE WAS MADE FOR 450 METRES UP THE BROOK. ABUNDANT BULL WHITE QUARTZ CAN BE SEEN IN THE BED OF THE BROOK. SEVERAL QUARTZ VEINS WERE SEEN IN PLACE BUT NONE APPEARED TO BE MINERALIZED.

SAMPLE K02-06
GRAB SAMPLE FROM QUARTZ VEIN AREA 245 M WEST OF THE BRIDGE. THE SAMPLE IS A COMPOSITE SAMPLE OF THE QUARTZITE, QUARTZ VEIN AND THE INTRUSIVE ROCK.

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\02 BADDECK, 1:50,000

GSC MAP 12, GEOLOGY, FLETCHER, ONE INCH TO ONE MILE, 1884

GSC MAP 1211A GEOLOGY, D.G. KELLEY, ONE INCH TO ONE MILE, 1952-54 (GENERAL GEOLOGY ONLY)

GSC OF 1594, GEOLOGY, S.M.BARR, R.P.RAESIDE AND R.A.JAMIESON, 1:50,000, 1987 (GENERAL GEOLOGY ONLY)

BIBLIOGRAPHY :

NSDME AR 11K\02D 13-Q-39(01) COPPER, BIG HARBOUR

HOFFMAN, G.C.: CHEMICAL CONTRIBUTION TO THE GEOLOGY OF CANADA, GSC ANNUAL REPORT 1882-83-84, PART MM,P3

FLETCHER, H.: THE GEOLOGY OF NORTHERN CAPE BRETON, GSC ANNUAL REPORT 1882-83-84, PART H, P.33

BARR, S.M,R.P RAESIDE AND A.S. MACDONALD, GEOLOGY OF THE SOUTHEASTERN CAPE BRETON HIGHLANDS, NOVA SCOTIA, GSC PAPER 85-1B, P103-109, 1985 (GENERAL GEOLOGY ONLY)

BARR, S.M, G.A.O'REILLY AND A.M. O'BEIRNE, GEOLOGY AND GEOCHEMISTRY OF SELECTED GRANITOID PLUTONS OF CAPE BRETON ISLAND, NSDME PAPER 82-1, P15-23, 1982 (GENERAL GEOLOGY ONLY)

REMARKS :

THE LOCATION IS TAKEN FROM FLETCHERS GEOLOGY MAP. IT IS NOT CLEAR WHETHER WE ACTUALLY LOCATED THE AREA OF MINERALIZATION INDICATED ON FLETCHERS GEOLOGY MAP. NO AREA OF HEAVY MINERALIZATION COULD BE SEEN ALONG THE BROOK IN THE AREA INDICATED. THE GEOCHEMICAL ANALYSES MAY NOT BE REFLECTIVE OF THE MINERALIZATION AS THE SAMPLE WAS A COMPOSITE SAMPLE. THE INTRUSIVE LOOKS VERY SIMILAR TO SAMPLES TAKEN AT THE PRICE POINT ADIT (K07-01) ON ST ANNS PENNINSULA.

VERIFICATION :

THE OCCURRENCE IS POORLY DESCRIBED AND COULD NOT BE DEFINATELY CONFIRMED BY AN NSDME FIELD CHECK IN 1990, AS THE QUANTITY OF MINERALIZATION NOTED WOULD NEVER PROVIDE ANALYTICAL VALUES OF THE TENOR NOTED BY HOFFMAN.

ASSAY DATA

HOFFMAN 1884 :" FROM THE MAINLAND ON THE WESTERN SIDE OF GREAT BRAS DOR OPPOSITE THAT PART OF BOULDARIE ISLAND CALLED MAN OF WAR POINT, VICTORIA COUNTY, NOVA SCOTIA.

THE SPECIMEN CONSISTED OF COPPER-PYRITES IN A COMPACT BLUISH GANGUE. IT WAS FOUND TO CONTAIN

COPPER 14.28% "

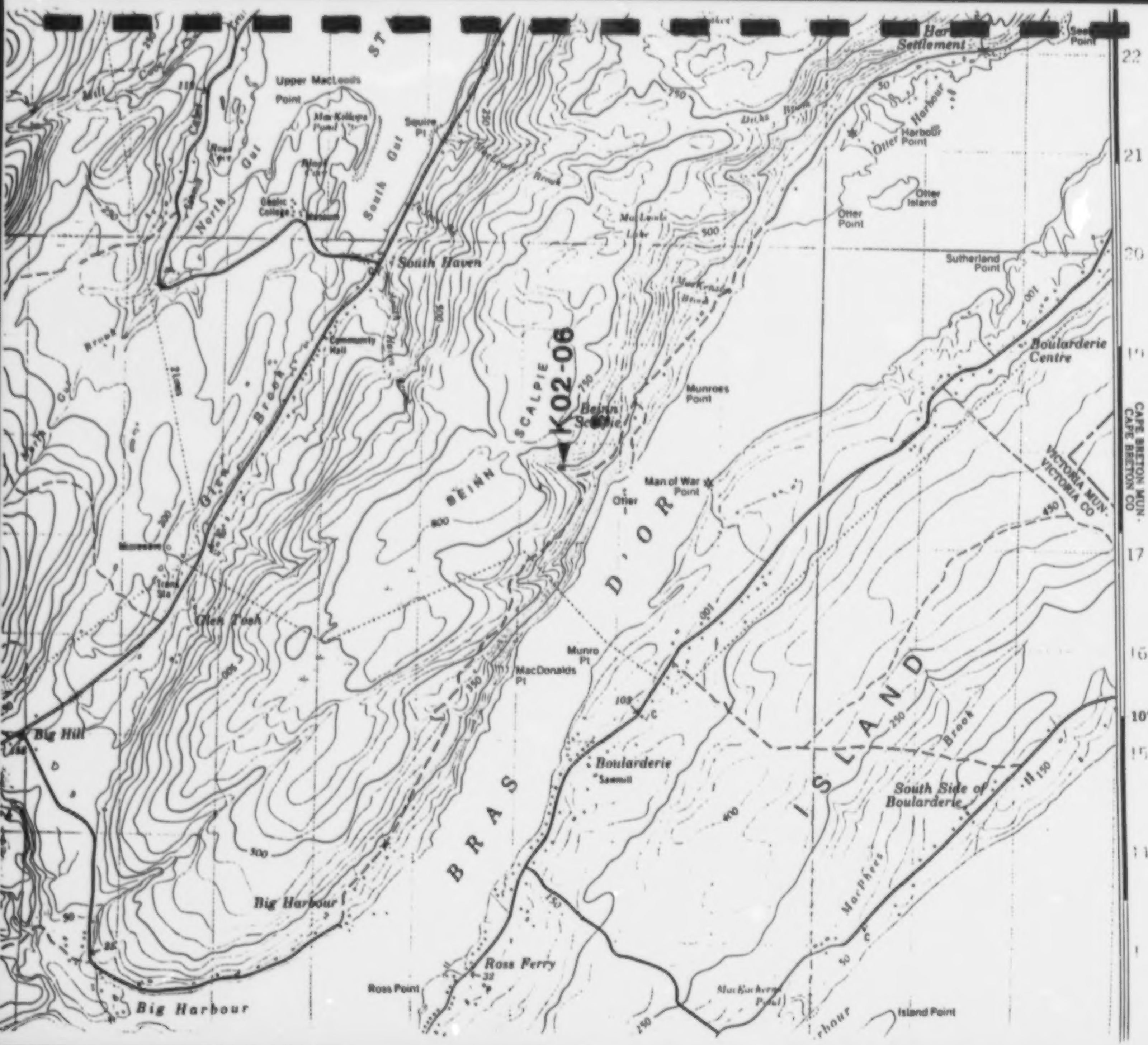
NSDME 1990
BONDAR CLEGG AU+33

SAMPLE NUMBER		K02-06
ELEMENT	UNITS	
NA	PCT	0.72
SC	PPM	7.5
CR	PPM	460
FE	PCT	1.4
CO	PPM	<10
NI	PPM	<20
ZN	PPM	<200
AS	PPM	9
SE	PPM	<10
BR	PPM	2
RB	PPM	<10
ZR	PPM	<500
MO	PPM	<2
AG	PPM	<5
CD	PPM	<10
SN	PPM	<200
SB	PPM	0.3
TE	PPM	<20
CS	PPM	<1
BA	PPM	<100
LA	PPM	<5
CE	PPM	<10

SM	PPM	0.6
EU	PPM	<2
TB	PPM	<1
YB	PPM	<5
LU	PPM	<0.5
HF	PPM	<2
TA	PPM	<1
W	PPM	<2
IR	PPB	<100
AU	PPB	<5
TH	PPM	<0.5
U	PPM	<0.5
WT	g	13.46

SURVEYS PERFORMED
GEOLOGY

COMPILED BY :GARTH DEMONT, MARCH, 1989
UPDATED BY :GARTH DEMONT, DEC, 1990
FIELD CHECKED BY :G.DEMONT AND C.WILLIAMS, JULY, 1990


K02-06
BRAS D'OR
ISLAND
Big Harbour
Big Hill
Glen Tosh
Glen Brook
South Haven
North Gut
South Gut
Upper MacLeods Point
Squire Pt
Community Hall
Gaelic College
BEINN SCALPIE
Beinn Scalpie
Munroes Point
Man of War Point
Otter
Munro Pt
MacDonalds Pt
Boularderie
Sawmill
Boularderie Centre
South Side of Boularderie
Macphees Brook
Ross Ferry
Ross Point
MacEacherns Pond
Island Point
Sutherland Point
Otter Point
Otter Island
Otter Harbour Point
Otter Harbour
Settlement
MacKenzie Brook
Dicks Brook
MacLeods Lake
VICTORIA MUN.
VICTORIA CO
CAPE BRETON MUN.
CAPE BRETON CO
ST
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Dugout	Abre
Dum[illegible]	Dépo
Filtration Plant	Usin
Gas	Gaz
Golf Course	Terra
Junk Yard	Ferra
Kiln	Four
Lookout	Belv
Mine Waste	Débl
Oil Wells	Puits
Park	Parc
Rink	Pati
Senior Citizens Home	Foye
Ski Area	Stat
String Bog	Fon
Surveyed Line	Lign
Tank	Rés
Water	Eau
Winter Road	Che

For a complete glossary see reverse

Pour un glossaire complet, voir au v

ABBREVIATIONS

Aband	Abandoned
C	Cemetery
CO	County
E	Elevator
Fy	Ferry
IR	Indian Reserve
H	Hospital
L	Lot
Micro	Microwave
Mun	Municipality
P	Post Office
PH	Power House
RCMP	Royal Canadian Moun
Res	Reservoir
Trans Sta	Transformer Station
TFL	Tree Farm Licence

25°02'
or/ou
445 Mils

Use diagram only to obt

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER :K02-08**

OCCURRENCE NAME : MIDDLE RIVER (GOLD BROOK)

LOCATION

COUNTY : VICTORIA **CLAIM MAP :**11K\02C **TRACT :** 104, 103 AND 103 **CLAIM :** J, M AND M

NORTHING : 5123420, 5123240 AND 5123230 **EASTING :** 662170, 662260 AND 662280 **ZONE :** 20

DESCRIPTIVE LOCATION : TAKE THE GOLD BROOK ROAD TURNOFF ON THE CABOT TRAIL AT MIDDLE RIVER. TRAVEL TO THE END OF THIS MAIN ROAD, A DISTANCE OF 2.3 KM. THE ROAD DOWNGRADES AT THIS POINT. TAKE THE NORTH OR LEFT BRANCH. FOLLOW THIS ROAD FOR 2.6KM. IT WINDS ITS WAY UP THE MIDDLE RIVER VALLEY. (THE ROAD WAS DRIVABLE IN 1990, BUT A COUPLE OF THE BRIDGES WERE IN NEED OF REPAIR) AT A DISTANCE OF 2.6KM THE ROAD HITS SECOND GOLD BROOK. THE ROAD IS NOT DRIVABLE PAST THIS POINT. FROM THIS POINT WALK SOUTH ALONG THE BROOK (UPSTREAM). THE ADIT WHICH WAS DRIVEN BY VICTORIA GOLD MINES IN THE 1980'S IS LOCATED 260 METRES FROM THE BRIDGE OVER SECOND GOLD BROOK (THE BRIDGE IS AT THE END OF THE DRIVABLE PART OF THE ROAD). THE DUMPS FROM THE RECENT WORK CAN BE SEEN ON THE WEST BANK OF THE BROOK AS YOU WALK TOWARDS THE ADIT. A COUPLE OF BUILDINGS WERE STILL STANDING AT THE TIME OF THE 1990 VISIT. ONE OF THE OLD ADITS IS VISIBLE AT A DISTANCE OF 402 METRES SOUTH OF THE BRIDGE (OR 132M SOUTH OF THE NEW ADIT). IT IS LOCATED AT BROOK LEVEL ON THE WEST BANK. THE OLD SHAFT IS LOCATED ON THE EAST BANK OF THE BROOK AT A DISTANCE OF 458 METRES SOUTH OF THE BRIDGE (OR 198M SOUTH OF THE NEW ADIT). THE OLD POWER AND MILL SITE IS LOCATED AT A DISTANCE OF 530METRES FROM THE BRIDGE. A ROCK WALLED SLUICE WAY IS VISIBLE AT THIS POINT.

SUMMARY DESCRIPTION

MINERALIZATION : GOLD, ARSENOYRITE, PYRITE, CHALCOPYRITE, NICKELLIFEROUS-PYRRHOTITE, SPHALERITE, CHALCOPYRITE, BISMUTHINITE, MOLYBDENUM, SILVER AND PLATINUM ? **COMMODITY :** AU, AS, AG, FE, ZN, CU, BI AND MO

STRATIGRAPHIC UNIT : MIDDLE RIVER UNIT (18) AND SARACH BROOK METAMORPHIC SUITE (OF 1594) **AGE :** HADRYNIAN

HOST ROCK : SCHIST AND QUARTZITE

STATUS : THE DEPOSIT WAS WORKED BEFORE 1916 BY THREE LEVELS AND A SHAFT. AN ADIT WAS ALSO DRIVEN IN 1984 BUT NO PRODUCTION WAS RECORDED.

GEOLOGICAL ENVIRONMENT :

R.A. JAMIESON AND P.DOUCET (REF 18) :" GOLD BROOK IN THE SOUTH, MIDDLE RIVER IN THE EAST, LAKE O'LAW IN THE WEST, AND FIELDING ROAD IN THE NORTH IS UNDERLAIN BY A COMPLEX OF METAMORPHIC ROCKS. THESE CAN BE DIVIDED INTO TWO MAJOR ASSEMBLAGES, INFORMALLY REFERRED TO HERE AS THE MIDDLE RIVER UNIT AND THE EGYPT HIGHLAND UNIT. THESE ROCKS ARE CUT BY GRANITES AND DYKES AND ARE FAULTED AGAINST LOWER GRADE METAVOLCANIC ROCKS AND CARBONIFEROUS SEDIMENTS TO THE WEST.

THE MIDDLE RIVER UNIT IN THE SOUTHERN PART OF THE AREA COMPRISES LOW TO MEDIUM GRADE METASEDIMENTARY ROCKS WITH LOCAL THIN METABASITE HORIZONS. FINE GRAINED, DARK GREEN TO BROWN, QUARTZ-BIOTITE-MUSCOVITE PHYLLITES AND SCHISTS OCCUR IN THE VICINITY OF SECOND GOLD BROOK, WHEREAS MEDIUM GRAINED, DARK BROWN, QUARTZ-BIOTITE-OLIGOCLASSE-MUSCOVITE GNEISSES DOMINATE TO THE NORTH. FINE TO MEDIUM-GRAINED, DARK GREEN METABASITES COMPOSED OF HORNBLENDE, QUARTZ AND MINOR INTERMEDIATE PLAGIOCLASE MAKE UP THE REMAINDER OF THE MIDDLE RIVER UNIT. CONTACTS BETWEEN THESE UNITS ARE SHARP AND PARALLEL TO THE FOLIATION. A THIN, EAST-WEST TRENDING MARBLE HORIZON IS LOCATED IN THE BIOTITE GNEISS ALONG MIDDLE RIVER NORTH OF SARACH BROOK. MARBLE ALSO OUTCROPS LOCALLY ALONG MIDDLE RIVER NEAR SECOND GOLD BROOK, AND IN THE UPPER PART OF FIONNAR BROOK. NEAR THE NORTHERN END OF SECOND GOLD BROOK AND IN SCATTERED OUTCROPS ALONG MIDDLE RIVER A DISTINCTIVE METACONGLOMERATE IS FOUND WHICH CONTAINS ELONGATED CLASTS OF QUARTZITE, SILTSTONE, AND VOLCANIC ROCKS IN A FINE GRAINED PHYLLITIC MATRIX.

THE MIDDLE RIVER UNIT IS INTRUDED ON THE EAST BY A NORTH- SOUTH TRENDING, SALMON PINK, MEDIUM GRAINED SYENOGRANITE.

THE STRUCTURAL COMPLEXITY OF THE MIDDLE RIVER AREA IS MORE EVIDENT IN THE SOUTH WHERE EARLY STRUCTURES ARE PRESERVED, ALTHOUGH THE METAMORPHIC GRADE INCREASES TO THE NORTH. MESOSCOPIC F1 FOLDS ARE FOUND LOCALLY IN BIOTITE GNEISS WHERE STRONG LITHOLOGICAL LAYERING OCCURS. THE DOMINANT PLANAR ELEMENT, S2, IS A STRONGLY DEVELOPED MICACEOUS FOLIATION, RANGING FROM A PHYLLITIC SCHISTOSITY IN THE SOUTH TO A GNEISSIC FOLIATION IN THE NORTH. BOTH THE MIDDLE RIVER AND EGYPT HIGHLAND UNITS STRIKE EAST-WEST AND DIP MODERATELY TO STEEPLY NORTH TO NORTHWEST. IN THE NORTH THE FOLIATION SWINGS TO THE NORTHWEST IN THE WEST AND TO THE NORTHEAST IN THE EAST, FORMING A CONCENTRIC STRUCTURE FOCUSED ON THE LEAST DEFORMED GRANITE. MESOSCOPIC S2 FOLDS AND KINKS ARE BEST DEVELOPED IN THE BIOTITE GNEISS. A WELL DEVELOPED NORTHEAST

TRENDING LINEATION (L2) IS DEFINED BY ELONGATED CLASTS IN THE METACONGLOMERATE. A LARGE F3 FOLD PLUNGES MODERATELY TO THE NORTH ALONG MIDDLE RIVER NEAR SECOND GOLD BROOK. A VERY FINE CRENULATION CLEAVAGE (S3) AND INTERSECTION LINEATION (L3) ARE OBSERVED IN THE SAME AREA. NO SEDIMENTARY FACING DIRECTIONS HAVE BEEN OBSERVED IN THE AREA. LATE FAULTS, JOINTS, AND DYKES TREND NORTH-SOUTH TO NORTHEAST-SOUTHWEST, ACROSS THE STRUCTURAL GRAIN.

THE METAMORPHIC GRADE INCREASES RAPIDLY FROM CHLORITE ZONE PHYLLITES IN THE SOUTH TO STAUROLITE AND KYANITE SCHISTS AND GARNET AMPHIBOLITES IN THE CENTRAL PART OF THE REGION. TWO EPISODES OF MINERAL GROWTH HAVE BEEN IDENTIFIED, THE FIRST ASSOCIATED WITH THE MAIN FABRIC (S2), THE SECOND REPRESENTED BY CHLORITE, CHLORITOID, BIOTITE, AND HORNBLENDE PORPHYROBLASTS CUTTING ACROSS THE FABRIC NEAR GOLD BROOK. MULTIPLE EPISODES OF MINERAL GROWTH HAVE NOT YET BEEN IDENTIFIED IN THE HIGHER GRADE ROCKS. RETROGRADE METAMORPHISM, LOCALLY ASSOCIATED WITH SHEAR ZONES, IS COMMON IN ALL UNITS. THE CONCENTRATION OF PEGMATITE VEINS AND POCKETS ALSO INCREASES TOWARD THE NORTH AS THE GRANITES ARE APPROACHED."

REFERENCE DESCRIPTION :

WOODMAN 1898 (2) ;" SECOND BROOK IS MUCH LARGER THAN FIRST, AND HAS A NARROW STEEP SIDED VALLEY TO WITHIN A FEW YARDS OF ITS MOUTH. BETWEEN THE TWO STREAMS SCHIST OUTCROPS IN PLACES ON THE BANK OF THE MAIN RIVER. HERE THE BEDS ARE KNOTTED AND CRUMPLED AND SHOW THE SPOTTED CONDITION OF EARLY STAGES IN THE FORMATION OF GARNETS BY METAMORPHISM. THE VARIATION IN STRIKE, DUE TO CRUMPLING, IS ONLY LOCAL. THIS IRREGULARITY OBTAINS ALSO IN THE LOWER PORTION OF SECOND BROOK ; BUT THE STRATIFICATION BECOMES MORE EVEN AND THE DIP STEADILY HIGHER SOUTHWARD TOWARD THE GRANITE AREA. IN THE EXPOSURES ALONG THE MAIN RIVER ARE A NUMBER OF VEINS, SOME OF WHICH ARE PRODUCTIVE BUT OF VERY LOW GRADE. THOSE CARRYING GOLD LIE ABOVE THE LOWER END OF THE LONG FLAT ISLAND. THERE ARE ALSO TO BE FOUND A NUMBER OF QUARTZ LENSES UP TO A FEW FEET IN LENGTH, CUTTING ACROSS THE STRATA. SO FAR AS KNOWN THEY ARE ALL BARREN.

IN THE GLEN OF SECOND GOLD BROOK THERE ARE NO VEINS IN THE LOWER PORTION WHICH SHOW ANY PROMISE AND FOR TWO THOUSAND FEET FROM THE MOUTH THERE IS LITTLE OF IMPORTANCE. AT ABOUT THIS POINT THE VEINS BECOME MORE ABUNDANT, AND SEVERAL APPPEAR TO BE OF ECONOMIC VALUE. MOST OF THOSE HERE AND FARTHER SOUTH ARE CONFORMABLE WITH THE STRATA, BUT A FEW OCCUPPY TRUE FISURES. AMONG THOSE IS ONE DESIGNATED BY THE OWNER AS THE "LIZARD LODE". THIS IS IRREGULAR IN STRIKE BUT RUNS VERY ROUGHLY PARALLEL WITH THE

BEDDED LEADS. ITS DIP IS NORTH AT A SOMEWHAT HIGHER ANGLE THAN THAT OF THE COUNTRY ROCK, AND IN PLACES IS VERTIACL. THE FISSURE VARIES IN WIDTH FROM FIFTEEN INCHES TO THREE FEET, AND IS FILLED ALMOST ENTIRELY BY QUARTZ, OFTEN WITH A BANDED STRUCTURE NEAR AND PARALLEL TO THE MARGINS AND WITH DRUSY CAVITIES NEAR THE CENTRE. THE VEIN IS FREQUENTLY SWELLED AND PINCHED, AND SLICKENSIDES ALONG ITS CONTACTS SHOW MUCH SLIPPING. BOTH WALLS ARE OF SOFT SCHIST. CLOSE TO THE FOOTWALL IS A MASS OF HORNBLENDE SYENITE GNEISS ONE HUNDRED FEET WIDE. THE CONTACTS OF THIS BELT ON THE NORTH AND ON THE SOUTH ARE NOT VISIBLE. UNDER THE MICROSCOPE THE ROCK IS SEEN TO CONSIST OF ORTHOCLASSE FELDSPAR, MUCH CRUSHED, AND BIOTITE, WITH A LARGE AMOUNT OF HORNBLENDE. ALL THESE SHOW DISTORTION BY DYNAMIC AGENCIES. A LITTLE APATITE IS PRESENT BUT NO QUARTZ. THE WHOLE ROCK IS MUCH WEATHERED.

SOUTH OF THIS INTRUSIVE IS A PECULIAR BLACK SCHIST, MORE MASSIVE , THAN THOSE ON THE NORTH; WHICH MAY BE EITHER A MORE METAMORPHOSED PORTION OF THE SAME SERIES AS BEFORE NOTED, OR OF QUITE DIFFERENT ORIGIN. IT IS CONFORMABLE UNDER IT. ON THE SOUTHERN BORDER OF THIS, FIVE HUNDRED FEET FROM THE LIZARD LODE AND 2500 FEET FROM THE MOUTH OF THE BROOK, IS A DIKE OF QUARTZ PORPHRY FIFTEEN TO THIRTY FEET WIDE. THIS DIKE HAS THE SAME EAST AND WEST STRIKE AS THE SCHISTS AND APPARENTLY A SOMEWHAT HIGHER DIP. ITS MARGINS ARE IRREGULAR. IT HAS BEEN FOLLOWED FOR THREE AND ONE HALF MILES EASTWARD FROM FIRST BROOK AND IS FAIRLY PERSISTANT IN STRIKE. THE MAIN PORTION OF THE DIKE CONSISTS OF A FINE GRAINED PINKISH GROUND MASS, WITH PHENOCRYSTS OF QUARTZ AND A FEW OF ORTHOCLASSE. ON THE MARGINS THES CRYSTALS ARE ABSENT, AND THE ROCK TAKES ON A DENSE FLINTY OR FELSITIC APPEARENCE AND PINKISH-BROWN COLOR, AND IS BANDED PARALLEL TO THE CONTACT. UNDER THE MICROSCOPE THE LARGE QUARTZ CRYSTALS SHOW RESORPTION DUE TO PARTIAL MELTING OF THEIR MASS. THEY ARE OFTEN SURROUNDED BY A THICK RIM OF VERY FINE PARTICLES OF QUARTZ AND A BROWN POLARIZING SUBSTANCE WHICH HAS REGULAR CRYSTAL OUTLINES, BUT WHICH HAS NOT YET BEEN DETERMINED. IN ADDITION TO THIS IS A BROWN NON POLARIZING MINERAL, DISTRIBUTED IN IRREGULAR TUFTS OF RADIATING FIBERS. THESE, WITH SOME PLAGIOCLASSE , CONSTITUTE THE GROUNDMASS. THE DIKE IS OF GREATEST INTEREST FROM A PETROGRAPHIC STAND POINT, VARYING CONSIDERABLY FROM ORDINARY PORPHYRIES.

SOUTH OF THE DIKE THE VEINS ARE MORE NUMEROUS THAN ON THE NORTH. MOST OF THEM ARE KNOWN TO BE BARREN, BUT ONE OR TWO NEAR THE DYKE CARRY METAL. IN GENERAL THE VEINS, BOTH BARREN AND METALLIFEROUS INCREASE IN NUMBER TOWARDS THE DIKE AND DECREASE RAPIDLY AWAY FROM IT ON EITHER SIDE. IT IS NOTICEABLE THAT BOTH BEDDED AND FISSURE VEINS NEAR

THE DYKE POSSESS CHARACTERS OF MINERALIZATION DIFFERENT FROM THOSE IN OTHER PARTS OF THE SCHIST SERIES.

BEYOND THE DYKE, UP TO SOMEWHAT MORE THAN A MILE FROM THE MOUTH OF THE BROOK, THE EXPOSURES SHOW SCHISTS IN EVERY WAY LIKE THOSE ON THE NORTH, AND EVIDENTLY A PART OF THE SAME SERIES. THOSE NEAR THE DIKE ARE MORE MASSIVE THAN THE ONES NORTH OF IT, AND BECOME DENSER AWAY FROM THE INTRUSION. THEY STRIKE ROUGHLY EAST AND WEST MAGNETIC, AND DIP NORTH, MORE STEEPLY THAN THOSE NEAR THE MOUTH OF THE BROOK. SLICKENSLIDES ARE ABUNDANT THROUGHOUT THE MILE OF SECTION; AND THEIR FRESHNESS NOT ONLY GIVES SOME IDEA OF THE AMOUNT OF STRESS UNDER WHICH THE ROCKS HAVE BEEN IN AGES PAST, BUT PROVES THAT THEY ARE STILL YIELDING TO SIMILAR STRAINS. TO THE SOUTH LIES A GRANITITE FROM WHICH THE SCHISTS DIP OFF STEEPLY. THE GRANITITE IS A VERY ACID VARIETY, CONTAINING MUCH QUARTZ. IT IS FRIABLE, QUITE COARSE, AND OF A RED COLOR, THE LAST DUE TO A PARTIAL WEATHERING OF ITS ORTHOCLASE FELDSPAR. "

(NOTE THE NUMBERS IN BRACKETS REFER TO NUMBERS OF THE REFERENCES LISTED)

THE EARLIEST REPORTED GOLD IN THE AREA WAS FOUND IN THE ALLUVIUM OF MIDDLE RIVER IN 1862. AN AMERICAN COMPANY TESTED THE AREA IN 1867 AND COMMENCED A WASHING OPRATION NEAR MCLENNANS BRIDGE. THEY WASHED CONSIDERABLE GOLD AND SEVERAL BARRELS OF BLACK SAND.(1) BISMUTH NUGGETS UP TO THE SIZE OF A PIGEONS EGG WERE ALSO FOUND IN THE WORKINGS.(1) PLATINUM WAS REPORTED TO HAVE BEEN FOUND FREQUENTLY IN THE ALLUVIUM AND TO HAVE BEEN DETECTED IN ASSAYS.(2) THE QUARTZ VEINS WERE LOCATED IN 1868 AND A CRUSHER WAS ERECTED.

THE MOST EXTENSIVE WORK WAS PERFORMED BETWEEN 1906-1916 BY THE GREAT BRAS D'OR MINING COMPANY. THE WORK WAS CONCENTRATED IN A ZONE KNOWN AS THE LIZARD VEIN. THREE LEVELS WERE DRIVEN ON THE WEST BANK OF SECOND GOLD BROOK AND A SHAFT WAS SUNK AT THE BROOK LEVEL. NO CONTINUOUS PRODUCTION HAS BEEN RECORDED SINCE 1916 ALTHOUGH SPORADIC CRUSHINGS HAVE BEEN DONE AND SOME MINOR WORKINGS OF ALLUVIUM WERE PERFORMED. DRILLING HAS BEEN DONE AT VARIOUS TIMES BUT IT FAILED TO INDICATE ANY ECONOMIC MINERALIZATION. THE STRUCTURAL COMPLEXITY OF THE AREA MAKES IT DIFFICULT TO DEFINE DRILL TARGETS.
A NEW ADIT WAS DRIVEN BELOW THE OLD WORKINGS BY VICTORIA GOLD MINES BETWEEN 1984 AND 1986. NO PRODUCTION WAS PERFORMED BUT BULK SAMPLES WERE TAKEN.

THREE PRINCIPAL VEIN SYSTEMS OCCUR AT SECOND GOLD BROOK . THESE ARE THE LIZARD VEIN, LITTLE MICMAC, AND BIG MICMAC. THE RECORDED PRODUCTION UP TO 1916 WAS 1670 OZ AU FROM 6093 TONS CRUSHED.(19)

THE LIZARD VEIN IS LOCATED APPROXIMATELY 1.6 KM

FROM THE MOUTH OF SECOND GOLD BROOK (5)(#00). THE VEIN OCCURS IN A FISSURE WHICH PARALLELS THE REGIONAL STRATA (5)(#14). THE FISSURE OCCUPIES A ZONE OF SHEARING WHICH PENETRATES BOTH THE SLATES AND METAGABBRO SILL AND IS A SUBSIDIARY STRUCTURE OF THE NORTH TRENDING FAULT ZONE OCCUPPIED BY SECOND GOLD BROOK (5)(#14). THE VEIN OCCURS AS ENCHELON LENSES RATHER THAN ONE CONTINUOUS BAND (8). THE VEIN HAS BEEN EXPLOITED FOR 198 METRES ALONG STRIKE OVER A VERTICAL DISTANCE OF 46 METRES (8). THE LIZARD VEIN IS WHITE, OCCASIONALY GLASSY, VERY BRITTLE, AND CONTAINS LITTLE OR NO CARBONATE OR VISIBLE MINERALIZATION (8). THE FRACTURE SURFACES ARE COATED WITH SMEARS OF PYRITE AND ARSENOPYRITE.(8) THE ARSENOPYRITE IS PRESENT IN NARROW 2-25MM VEINLETS WHICH PARALLEL THE HANGINGWALL OF THE LENSES.(8) TRACES OF CHALCOPYRITE ARE COMMONLY ASSOCIATED WITH THE MASSIVE ARSENOPYRITE. MINOR SPHALERITE IS PRESENT IN THE QUARTZ AND SPECKS OF BISMUTHANITE ARE ASSOCIATED WITH THE PYRITE.(8) THE TOTAL SULPHIDE CONTENT IS LESS THAN 5% (8).

THE LITTLE MICMAC VEIN IS FOUND IN OUTCROP ON THE BROOK 61 METRES NORTH OF THE LIZARD VEIN.(5)(#00) IT CONSISTS OF 0.9-1.1 METRES OF QUARTZ DIPPING 35DEG NE AND PARALLELLING THE STRIKE OF THE LIZARD VEIN (5)(#00). THE LITLE MICMAC IS A QUARTZ FELDSPAR VEIN CONTAINING UP TO 60% ORTHOCLASSE (8). PYRITE AND ARSENOPYRITE MAKE UP 5-8% OF THE VEIN.(8) THE VEIN OCCURS RIBBON LIKE ALONG THE PLANES OF BEDDING IN THE METASEDIMENTS. (5)(#14) SAMPLES OF THE WEATHERED OUTCROP TAKEN BY J.P. MESSERVEY IN 1931 GAVE $2.60 AU PER TON (5)(00).

THE BIG MICMAC VEIN IS LOCATED 82 METRES SOUTH OF THE LIZARD VEIN.(5)(00) IT OCCURS IN A SLATE BELT 4.9 METRES WIDE IN WHICH ARE FOUND SEVERAL QUARTZ VEINS HAVING THE SAME GENERAL STRIKE AND DIP AS THE LIZARD VEIN (5)(#00). THE BIG MICMAC OCCURS RIBBON LIKE ALONG THE PLANES OF BEDDING IN THE METASEDIMENT (5)(14). A SAMPLE OF THE OUTCROP BY J.P. MESSERVEY IN 1931 GAVE $10.80 AU\TON. (5)(#00)

FOUR TYPES OF QUARTZ VEINING WERE NOTED IN THE WORKINGS : 1) WHITE TOTALLY BARREN "BULL" QUARTZ, 2) QUARTZ CARBONATE, 3) LIZARD VEIN TYPE AURIFEROUS QUARTZ, 4) QUARTZ FELDSPAR MIXTURE.(8)

TWO SILLS, ONE OF META GABBRO AND THE OTHER QUARTZ PORPHRY OCCUR IN CLOSE ASSOCIATION WITH THE LIZARD VEIN. THE SILLS PARALLEL THE REGIONAL STRIKE. AURIFEROUS VEINS ARE FOUND ABOVE, BELOW AND BETWEEN THE TWO SILLS.(5)(#14)

TWO TYPES OF VEINING WERE NOTED IN THE WORKINGS. THE FIRST TYPE IS A QUARTZ, CARBONATE, PYRITE, ARSENOPYRITE VEIN. THE SECOND IS A NICKELIFEROUS-PYRITE, PYRRHOTITE, CHALCOPYRITE VEIN. (16) NEAR THE QUARTZ VEINS CHLORITE-SERICITE

ALTERATION IS DISTINCT BUT ONLY NOTICEABLE FOR 15CM FROM THE VEINS.(16) THE SULPHIDE VEINS SHOW SERICITIC ALTERATION FOR UP TO 5 METRES FROM THE VEIN. (16)

TWO AGES OF PYRITE MINERALIZATION WERE NOTED BY CHATERJEE.(16) THE FIRST TYPE MAKES UP 45% OF THE TOTAL SULPHIDE. THEY ARE MASSIVE AND BRECCIATED. VEINS AMD STRINGERS OF QUARTZ AND CALCITE CRISSCROSS THE PYRITE.(16) TYPE 2 CONSISTS OF VEINLETS OF A FRESHER NON BRECCIATED TYPE WHICH CUTS THE MASSIVE PYRITE. THIS PYRITE MARKS THE ENTRY OF THE PYRRHOTITE WHICH IS ASSOCIATED WITH PYRITE AND CHALCOPYRITE IN NARROW STRINGERS.(16) THE NICKELIFEROUS PYRRHOTITE WAS EXPOSED IN THE TRACK LEVEL ALTHOUGH IT WAS ALSO INTERSECTED IN A THIN VEIN IN DRILLHOLE M-1 DRILLED BY MAREAST IN 1962.(5)(#03) (SEE OCC K02-24)

FIELD DESCRIPTION :

THE OCCURRENCE WAS FIELD CHECKED IN 1990. THE AREA WAS VISITED PRIMARILY TO ACCURATELY LOCATE THE OLD WORKINGS.EXTENSIVE INFORMATION IS AVAILABLE ON THE OCCURRENCE SO DESCRIPTIONS OF THE MINERALIZED AREAS WERE NOT MADE ON THIS FIELD CHECK.

THE TRAVERSE WAS STARTED AT THE POINT WHERE SECOND GOLD BROOK ENTERS MIDDLE RIVER. THE BROOK ENTERS IN TO A SIDE BRANCH OF MIDDLE RIVER. THE RIVER HAS MEANDERED OVER A WIDE AREA AT THE MOUTH OF SECOND GOLD BROOK. THIS ARE WAS THE SITE OF SOME OF THE OLD GOLD WASHINGS. A TRENCH MADE TO TAKE A BULK SAMPLE OF THIS RIVER MATERIAL IS LOCATED ON THE EAST BANK OF THE BROOK AT A DISTANCE OF 124M FROM THE BROOK MOUTH.

THE ROAD TO THE OLD WORKINGS CROSSES SECOND GOLD BROOK AT A DISTANCE OF 255 METRES FROM THE MOUTH OF THE BROOK. THE OLD BRIDGE IS IN POOR CONDITION. A LARGE QUARTZ VEIN IS VISIBLE IN THE BED OF THE BROOK AT DISTANCE OF 498 METRES FROM THE MOUTH OF SECOND GOLD BROOK. THIS VEIN WAS NOT SAMPLED.

THE NEW ADIT (VICTORIA GOLD MINES), AND THE FOUNDATION FOR THE OLD MILL IS VISIBLE ON THE WEST BANK OF THE BROOK AT A DISTANCE OF 513 METRES FROM THE MOUTH OF THE BROOK. THE ADIT APPEARS TO BE IN GOOD SHAPE BUT THE ENTRANCE IS BOARDED UP.A COUPLE OF BUILDINGS ARE LOCATED NORTH OF THE ADIT, AND THE DUMP IS LOCATED ON THE WEST BANK TO THE NORTH OF THE BUILDINGS AND ADIT.

SEVERAL BAGS OF CRUSHED QUARTZ WERE NOTED ON THE EAST BANK OF THE BROOK AT A DISTANCE OF 619 METRES FROM THE BROOK MOUTH. (K02-08(07)) ONE OF THE OLD ADITS IS LOCATED AT BROOK LEVEL ON THE WEST BANK AT A DISTANCE OF 657 METRES .THE ADIT IS STILL OPEN ALTHOUGH THE CRIBBING AT THE ENTRANCE IS ROTTED.

(SAMPLES K02-08(05)(06)) THE OLD SHAFT IS LOCATED ON THE EAST BANK OF THE BROOK AT A DISTANCE OF 703 M FROM THE MOUTH OF THE BROOK. (SAMPLE K02-08(04)) THE SITE OF THE OLD MILL AND A SLIUCE WAY FOR THE WATER WHEEL CAN BE SEEN AT A DISTANCE OF 785 METRES FORM THE MOUTH OF THE BROOK. A ROCKED WALLED AREA OF THE BROOK MARK THIS SITE. IMMEDIATELY WEST OF THIS AN OUTCROP OF SCHISTOSE METASEDIMENT CAN BE SEEN. THREE QUARTZ VEINS CAN BE SEEN IN THIS OUTCROP.(BIG MICMAC?) THE VEINS VARY FROM 6-30CM THICK AS THEY PINCH AND SWELL. (SEE PHOTO) SEVERAL QUARTZ VEINS IN A SCHIST CAN BE SEEN IN THE BED OF THE BROOK AT A DISTANCE OF 810-816 METRES. (SAMPLE K02-08(03))

A PECULIAR BLUE SCHISTOSE SLATE WAS NOTED IN THE BED OF THE BROOK AT A DISTANCE OF 860 METRES FROM THE MOUTH OF THE BROOK.(SAMPLE K02-08(02)) A QUARTZ FELDSPAR PORPHRY UNIT IS VISIBLE IN THE BROOK AT A DISTANCE OF 1030 METRES FROM THE MOUTH OF THE BROOK.(SAMPLE K02-08(01))

SAMPLES

K02-08(01) GRAB SAMPLE QUARTZ FELDSPAR PORPHRY

K02-08(02) GRAB SAMPLE OF BLUISH SLATE UNIT

K02-08(03) GRAB SAMPLE OF QUARTZ VEINS IN SCHIST FROM OUTCROP IN THE BED OF THE BROOK

K02-08(04) GRAB SAMPLE OF STOPED QUARTZ IN FROM THE WORKINGS AT THE BOTTOM OF THE SHAFT

K02-08(05) GRAB SAMPLE TAKEN AT A FOUR WAY JUNCTION AT THE END OF THE ENTRANCE OF THE OLD ADIT

K02-08(06) GRAB SAMPLE OF QUARTZ VEINING IN METASEDIMENTS AT THE PORTAL OF THE OLD ADIT. SAMPLE TAKEN BECAUSE OF THE RUST STAINING.

K02-08(07) SAMPLE OF CRUSHED QUARTZ FROM OLD SAMPLE BAGS FOUND ON THE BANK OF THE BROOK

K02-08(08) GRAB SAMPLE OF METASEDIMENT FLOAT CONTAINING PYRITE AND MINOR CHALCOPYRITE TAKEN FROM THE HILLSIDE 174M ABOVE THE NORTH END OF THE DUMPS

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\02 BADDECK, 1:50,000

GSC MAP 13 GEOLOGY, FLETCHER, ONE INC TO ONE MILE, 1884

GSC OF1594 GEOLOGY, BARR, RAESIDE, JAMIESON, 1:50,000, 1987

BIBLIOGRAPHY :

(1) FLETCHER, H.: GSC REPORT OF PROGRESS 1882-84, V.12, PT.H, P28-29,97 (MRF004)

(2) WOODMAN, J.E.; ORE BEARING SCHISTS OF MIDDLE AND NORTHERN CAPE BRETON, NSDME ANNUAL REPORT 1898 (MRW005)

(3) RONNAN, F.P., INDUSTRIAL ADVOCATE V.4, NO.4, P.17, 1899 (MRR022)

(4) GREAT BRAS D'OR MINING COMPANY, PROSPECTUS, 1906 (MRG014)

(5) NSDME AR 11K\02C 21-Q-12 (00)-(14) GOLD, MIDDLE RIVER

(6) NSDME AR 11K\02C 04-Q-12(01)(02) ARSENIC, MIDDLE RIVER

(7) NSDME AR 11K\10B CLOSURE 1(03)(04) BASE METALS , CHETICAMP AREA

(8) NSDME AR 86-028, GOLD, MIDDLE RIVER

(9) NSDME AR 85-029 GOLD, MIDDLE RIVER

(10) MESSERVEY, J.P.: NSDME ANNUAL REPORT 1928, PT.2, P225-231

(11) MESSERVEY, J.P.: NSDME ANNUAL REPORT 1931, P121-123

(12) HURST, M.E.: ARSENIC BEARING DEPOSITS IN CANADA, GSC ECON. GEOL REP NO4, P.144

(13) GORANSON,E.A. MINERAL DEPOSITS AT NEW ROSS, INDIAN PATH , MIDDLE RIVER AND MEAT COVE, GSC SUMM REPT.1931, PT.D, P36-41

(14) DOUGLAS, G.V. AND MILNER, R.L.: ON AN OCCURRENCE OF NICKELIFEROUS PYRRHOTITE IN NOVA SCOTIA: CANADIAN INSTITUTE OF MINING AND METALLURGY, TRANS, V.60, P258-260 (MRD012)

(15) ALCOCK, F.J.: MIDDLE RIVER GOLD FIELD: GSC SUMMARY REPORT 1932, PT.D, P58-68

(16) CHATTERJEE, A.K : MINERALIZATION AND ASSOCIATED WALL ROCK ALTERATION IN THE GEORGE RIVER GROUP, CAPE BRETON ISLAND, PHD THESIS, DALHOUSIE

UNIV., 1980

(17) DOUCET, P.: THE PETROLOGY AND GEOCHEMISTRY OF THE MIDDLE RIVER AREA, CAPE BRETON ISLAND, NOVA SCOTIA, MSC THESIS, DALHOUSIE UNIV., 1983

(18) JAMIESON, R.A.,AND P. DOUCET : THE MIDDLE RIVER- CROWDIS MOUNTAIN AREA, SOUTHERN CAPE BRETON HIGHLANDS, GSC PAPER 83-1A, CURRENT RESEARCH PART A, P269-275

(19) MALCOLM, W.: THE GOLD FIELDS OF NOVA SCOTIA: GSC MEMOIR 385, P230-232

(20) CHATTERJEE, A.K., S.J.HAYNES AND M. ZENTILLI, METALLOGENY OF GOLD IN NOVA SCOTIA, NSDME REPORT OF ACTIVITIES 1983, REPORT 84-1, P229-230, 1984

(21)NORTHCOTE,K.E., G.DEMONT, AND A.ARMITAGE, OPEN FILE REPORT ON SELECTED MINERAL OCCURRENCES OF SOUTHERN CAPE BRETON ISLAND, NSDME OFR 89-004, 1989

REMARKS :

WHEN THE MAGNETIC DATA, AND GEOLOGY FROM THE DRILLING IS PLOTTED ON A MAP WITH THE UNDERGROUND GEOLOGY, SOME INTERESTING PATTERNS ARE EVIDENT. THE MAGNETIC DATA (5)(*13) INDICATES SEVERAL FAULTS IN THE AREA. THE FAULTING EXPLAINS MUCH OF THE POOR DRILLING RESULTS. AN EXAMPLE IS HOLE 184-4 WHICH DOES NOT CONTAIN THE DIORITE SILL(METAGABBRO) . THE MAGNETIC DATA SHOWS THAT IT HAS BEEN FAULTED OUT EAST OF THE DRILL HOLE. THIS A PRINCIPAL N-S TRENDING FAULT WHICH PARALLELS THE FAULT INDICATED ALONG SECOND GOLD BROOK. AN EAST WEST FAULT IS INDICATED IN THE UNDERGROUND WORKINGS, DRILL HOLES M-6 AND M-7 (5)(*03) AND BY A BROKEN MAGNETIC SIGNATURE. THE LIZARD LODE APPEARS TO FOLLOW THIS FAULT.

THE EASTERN END OF THE WORKINGS WOULD APPEAR TO GIVE THE BEST POTENTIAL. THE BRAS D'OR MINING COMPANY WAS WORKING IN THIS AREA WHEN MINING STOPPED IN 1916. THE WESTERN END IS DISTURBED BY AT LEAST 2 FAULTS AND A POSSIBLE NE TRENDING SERIES AS WELL. THE AREA CONTAINING THE PYRRHOTITE SULPHIDES IS A POSSIBLE INTERSECTION OF THESE THREE FAULT SYSTEMS. THIS WOULD EXPLAIN THE REPORTED STRONG BRECCIATION IN THE AREA.

A RELATIVELY STRONG MAGNETIC ANOMALY TO THE NORTH OF THE OLD WORKINGS, HAS NOT BEEN TESTED BY DRILLING. IN FACT IT APPEARS THAT NONE OF THE MAGNETIC ANOMALIES HAVE BEEN TESTED BY DRILLING. THERE ARE ALSO SOIL GEOCHEMICAL ANOMALIES FOR GOLD AND ARSENIC WHICH AS ARE YET UNEXPLAINED.

IT IS INTERESTING TO NOTE SEVERAL OTHER FEATURES NOTED IN THE REPORTS. FIRST THERE IS

SUBSTANTIAL AMOUNTS OF SILVER ASSOCIATED WITH THE GOLD. (10) SECOND, IN REPORT 84-1, CHATTERJEE, HAYNES AND ZENTILLI NOTE THAT THE MINERALIZING FLUIDS HAVE A MAFIC SOURCE (20). THIRD THE MAFIC SOURCE AND THE REPORTED PLATINUM MAKE THIS A POSSIBLE TARGET FOR PLATINUM. FOURTH, K. NORTHCOTE NOTED MOLYBDENUM MINERALIZATION IN THE DUMP ROCKS. THIS MAY INDICATE AN INTRUSIVE SOURCE.FINALLY, THE FACT THAT THE MINERALIZATION IS STRUCTURALLY CONTROLLED OPENS UP A LARGE TARGET AREA AS NUMEROUS FAULTS ARE INDICATED IN THE AREA.

REMARKS BY G.DEMONT 1989

VERIFICATION :

WELL DESCRIBED IN THE LITERATURE AND INSPECTED BY NSDME STAFF.

ASSAY DATA

NUMEROUS ASSAYS ARE AVAILABLE IN THE LISTED REPORTS. TH ASSAYS ARE NOT LISTED HERE TO PREVENT BIASING THE DATA.

NSDME 1990
BONDAR CLEGG AU+33

SAMPLE NUMBER	K02-08	(01)	(02)	(03)	(04)	(05)	(06)	(07)	(08)
ELEMENT	UNITS								
NA	PCT	2.00	1.70	0.73	0.21	2.60	2.20	1.10	1.50
SC	PPM	4.2	19.0	10.0	2.3	12.0	14.0	5.0	36.0
CR	PPM	410	300	510	310	250	340	420	270
FE	PCT	1.1	5.1	2.6	1.0	4.3	3.9	1.8	7.7
CO	PPM	<10	26	14	12	10	27	<10	39
NI	PPM	<20	52	56	52	45	44	23	54
ZN	PPM	<200	<200	<200	<200	<200	<200	<200	<200
AS	PPM	3	4	15	82	289	238	17	3
SE	PPM	<10	<10	<10	<10	<10	<10	<10	<10
BR	PPM	<1	<1	1	2	3	3	1	<1
RB	PPM	97	130	92	13	68	120	28	83
ZR	PPM	<500	<500	<500	<500	<500	<500	<500	<500
MO	PPM	<2	<2	<2	<2	<2	4	21	<2
AG	PPM	<5	<5	<5	<5	<5	<5	<5	<5
CD	PPM	<10	<10	<10	<10	<10	<10	<10	<10
SN	PPM	<200	<200	<200	<200	<200	<200	<200	<200
SB	PPM	1.0	11.0	8.8	0.9	0.6	1.7	3.8	0.5
TE	PPM	<20	<20	<20	<20	<20	<20	<20	<20
CS	PPM	5	7	6	<1	6	4	1	14
BA	PPM	630	540	500	<100	180	530	220	380
LA	PPM	41	29	19	<5	27	36	13	14
CE	PPM	87	76	43	<10	69	110	31	33
SM	PPM	6.4	6.3	5.0	0.5	6.4	9.1	2.7	7.4
EU	PPM	<2	<2	<2	<2	<2	<2	<2	<2
TB	PPM	<1	<1	1	<1	<1	1	<1	2
YB	PPM	<5	<5	<5	<5	<5	<5	<5	<5
LU	PPM	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7
HF	PPM	4	5	3	<2	5	7	<2	3

TA	PPM	1	<1	<1	<1	<1	1	<1	<1
W	PPM	<2	<2	3	<2	12	10	9	12
IR	PPB	<100	<100	<100	<100	<100	<100	<100	<100
AU	PPB	18	<5	<5	39	6	662	98	<5
TH	PPM	20.0	13.0	7.6	<0.5	11.0	17.0	4.5	3.5
U	PPM	3.1	2.5	1.6	0.5	2.7	3.8	1.1	0.9
WT	g	12.03	11.15	11.28	14.60	14.93	12.26	15.33	13.61

BONDAR CLEGG ATOMIC ABSORPTION

SAMPLE NUMBER		K02-08 (05)	(06)	(08)
ELEMENT	UNITS			
CR	PPM	150	148	175
CO	PPM	11	18	31
NI	PPM	28	31	41
CU	PPM	19	366	65

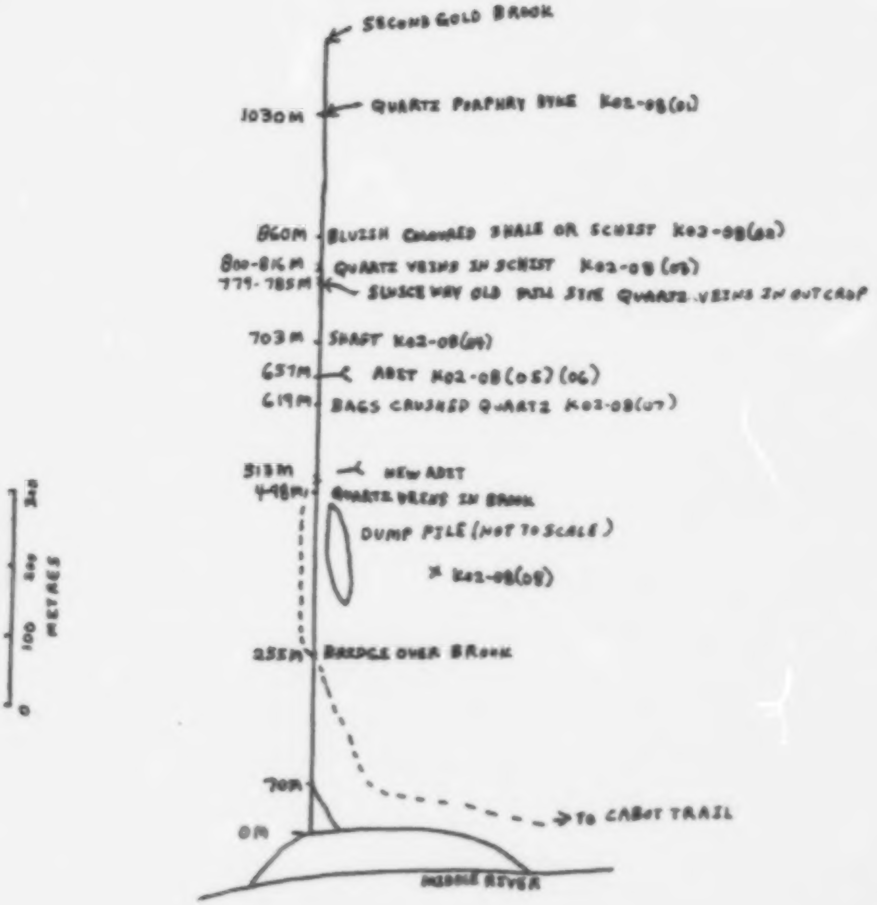
BONDAR CLEGG FIRE ASSAY

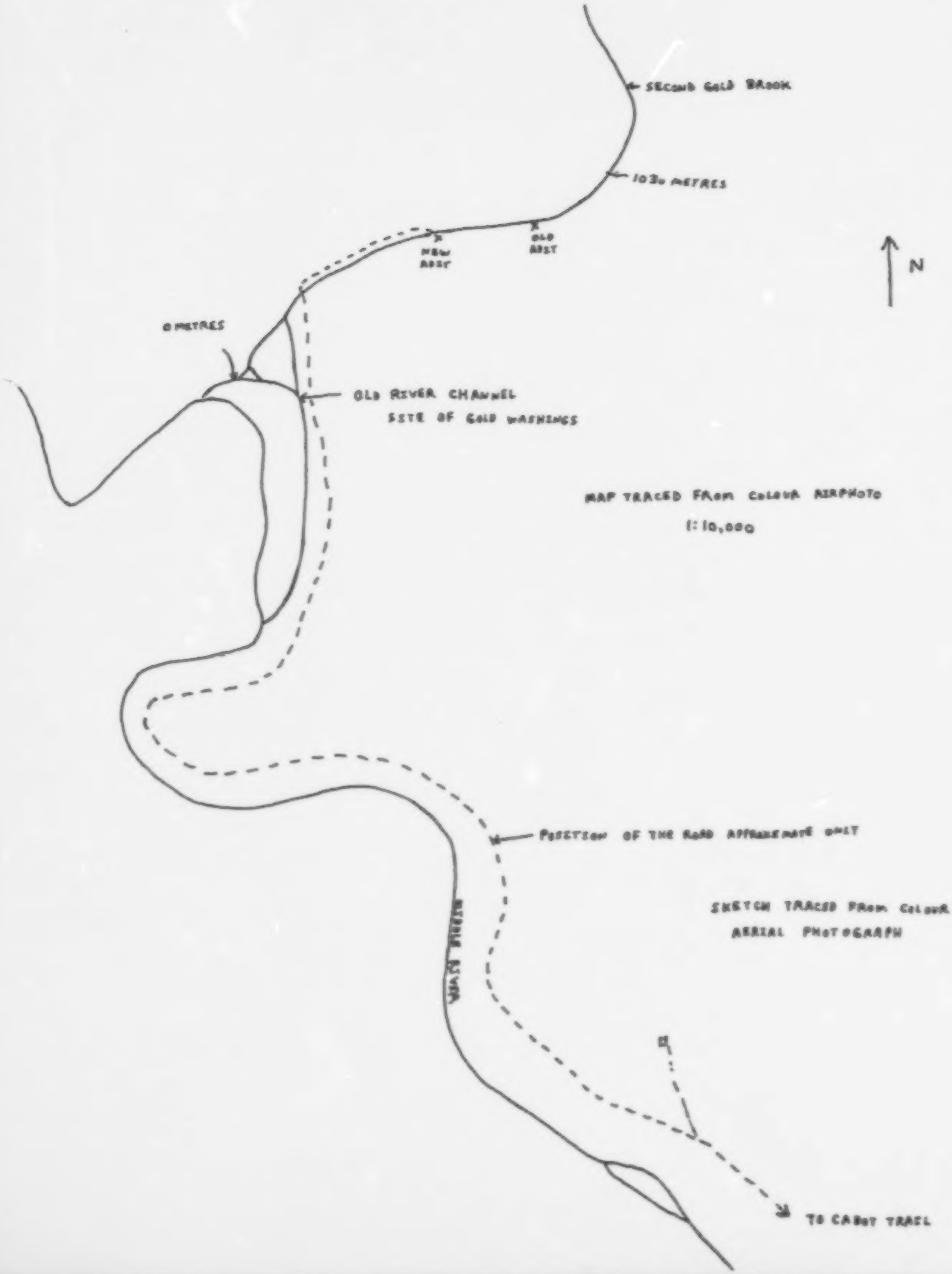
SAMPLE NUMBER		K02-08 (05)	(06)	(08)
ELEMENT	UNITS			
PD	PPB	1	3	2
PT	PPB	5	10	8
AU	PPB	7	551	3

SURVEYS PERFORMED

GEOLOGY, EM, IP, MAGNETOMETER, SOIL AND STREAM GEOCHEMICAL, DRILLING, 3 ADITS AND 1 SHAFT (1916), ONE ADIT 1985

COMPILED BY :GARTH DEMONT, APRIL, 1989
UPDATED BY :G.DEMONT, NOV. 1990
FIELD CHECKED BY :G.DEMONT AND C.WILLIAMS, AUGUST,1990


SECOND GOLD BROOK
1030M QUARTZ PORPHYRY DYKE K02-08(01)
860M BLUISH CRENULATED SHALE OR SCHIST K02-08(02)
800-816M QUARTZ VEINS IN SCHIST K02-08(03)
779-785M SLUICEWAY OLD MILL SITE QUARTZ VEINS IN OUTCROP
703M SHAFT K02-08(04)
651M ADIT K02-08(05)(06)
619M BAGS CRUSHED QUARTZ K02-08(07)
513M NEW ADIT
498M QUARTZ VEINS IN BROOK
DUMP PILE (NOT TO SCALE)
* K02-08(08)
255M BRIDGE OVER BROOK
70M
0M
TO CABOT TRAIL
MIDDLE RIVER
0
100
200
300
METRES

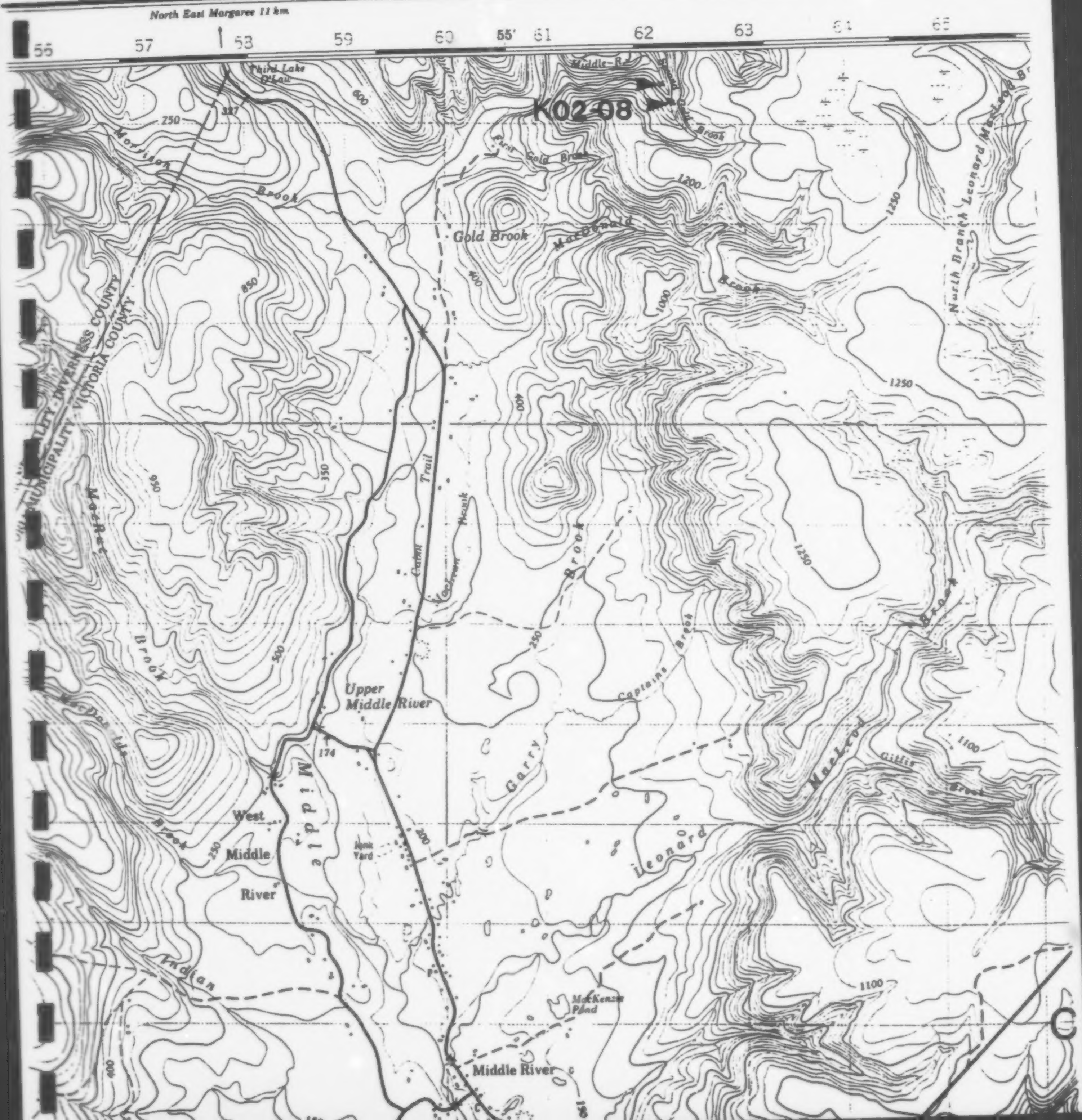

SECOND GOLD BROOK
1030 METRES
NEW ADIT
OLD ADIT
N
0 METRES
OLD RIVER CHANNEL
SITE OF GOLD WASHINGS
POSITION OF THE ROAD APPROXIMATE ONLY
MIDDLE RIVER
TO CABOT TRAIL

MAP TRACED FROM COLOUR AIRPHOTO
1:10,000

SKETCH TRACED FROM COLOUR
AERIAL PHOTOGRAPH

[redacted]

1:50 000


North East Margaree 11 km
56
57
58
59
60
55'
61
62
63
64
65
Third Lake O'Law
327
250
Morrison
Brook
600
Middle-R
K02-08
Gold Brook
First Gold Brook
1200
1250
North Branch Leonard MacLeod Br
Gold Brook
MacDonald
Brook
850
400
1000
1250
INVERNESS COUNTY
VICTORIA COUNTY
MUNICIPALITY
900
MacRae
350
Trail
Cabot
MacLeod Brook
400
1250
Brook
Brook
Brook
500
250
Upper Middle River
Captains Brook
Garry
174
Middle
MacLeod
Gillis
Brook
1100
West Middle River
Junk Yard
200
Leonard
250
Indian
MacKenzie Pond
1100
C
Middle River
400
150
150

OCCURRENCE NAME : CROW POINT

LOCATION

COUNTY : VICTORIA **CLAIM MAP :**11K\02B **TRACT :** 50 AND 51 **CLAIM :** Q AND A

NORTHING : 5102540 AND 5103850 **EASTING :** 670630 AND 672420 **ZONE :** 20

DESCRIPTIVE LOCATION : THE LOCATIONS GIVEN ARE TAKEN FROM FLETCHER'S MAP OF THIS AREA. THE LOCATION ON RED BROOK WAS EXAMINED BY NSDME STAFF IN 1990. THE LOCATION CHECKED WAS IMMEDIATELY SOUTH OF THE ROAD, ALONG THE BROOK, JUST EAST OF THE TURNOFF TO GILLIS POINT.

SUMMARY DESCRIPTION

MINERALIZATION : CHALCOPYRITE, GALENA AND GOLD **COMMODITY :** CU, PB AND AU

STRATIGRAPHIC UNIT : HORTON GROUP AND WINDSOR GROUP **AGE :** MISSISSIPPIAN

HOST ROCK : CONGLOMERATE AND LIMESTONE

STATUS : THE MINERALIZATION IS REPORTED TO OCCUR IN OUTCROP.A FIELD CHECK OF ONE OF THE TWO LOCATIONS IN 1990 COULD NOT LOCATE THE MINERALIZATION NOTED IN THE LITERATURE.

GEOLOGICAL ENVIRONMENT :

EXERPTS FROM GSC MEMOIR 351, D.G. KELLEY:

"MISSISSIPPIAN SEDIMENTARY ROCKS IN THE MARITIME PROVINCES HAVE MOST COMMONLY BEEN DIVIDED INTO THREE GROUPS : THE LOWER MISSISSIPPIAN HORTON GROUP AND THE UPPER MISSISSIPPIAN WINDSOR AND CANSO GROUPS.

LOWER MISSISSIPPIAN ROCKS OF THE HORTON GROUP ARE PROBABLY CONTINENTAL IN OROGIN, AS SUGGESTED BY THE PRESENCE OF A TERRESTRIAL FLORA AND THE LACK OF MARINE FOSSILS. UPPER MISSISSIPPIAN ROCKS OF THE WINDSOR GROUP ARE CHIEFLY MARINE AS INDICATED BY THE NUMEROUS FOSSILS FOUND IN WINDSOR LIMESTONES.

THE LOWER MISSISSIPPIAN HORTON GROUP CONSISTS OF CONGLOMERATE, ARKOSE SANDSTONE, SILTSTONE, SHALE AND MINOR LIMESTONE. THE UPPER MISSISSIPPIAN WIDSOR GROUP CONSISTS OF SILTSTONE, SHALE, SANDSTONE, LIMESTONE, GYPSUM, ANHYDRITE AND SALT IN THE CENTRAL PART OF THE BASIN, AND CONGLOMERATE, SANDSTONE, SILTSTONE, LIMESTONE, AND POSSIBLY SOME GYPSUM IN MARGINAL AREAS OF THE BASIN."

REFERENCE DESCRIPTION :

HOW 1868 ;" A CONGLOMERATE FROM THE NEWER METAMORPHIC ROCKS OF VICTORIA COUNTY IS REPORTED ON BY PROF. HIND IN CONNECTION WITH THE VEINS BEFORE MENTIONED FOUND BY MR CAMERON. THE CONGLOMERATE FORMS A BED ABOUT TWO FEET THICK UNDERLYING LIMESTONE, IT CONTAINS A LITTLE COPPER WITH REMAINS OF PLANTS AND ALSO UNWORN PEBBLES AND MASSES OF CRYSTALLINE LIMESTONE. DR HAYES FOUND IN THESE: 1) 5DWT OF GOLD 2) 19DWT 14GRS OF GOLD 3) 16DWT 8GRS OF GOLD TO THE TON 6DWT 12GRS SILVER ALSO. THESE WERE THE RESULTS OF ASSAYS OF SELECTED SPECIMENS IN WHICH GALENA AND COPPER ORE WERE VISIBLE."

FLETCHER 1867 P.438 :" ON THE COAST BETWEEN CROW POINT AND RED BROOK, IN THE BROOK AND ON THE ADJACENT HILLS, BLUISH-WHITE, ARENACEOUS, MICACEOUS LIMESTONE, RED AND GREY FINE SANDSTONE AND MARL DIP UNDER A CONGLOMERATE WHICH IN TURN IS OVERLAIN BY LIMESTONE. BOTH CONGLOMERATE AND LIMESTONE ARE CUPRIFEROUS NEAR THE JUNCTION. THE FORMER CONTAINS, IN ADDITION TO PEBBLES OF THE SCHISTS, PORHYRIES AND GRANITES OF THE HILLS, OTHERS OF CRYSTALLINE LIMESTONE : IN PLACES IT IS GREY OR LIGHT GREEN, PASSING INTO PURPLE SANDSTONE WITH GREEN BLOTCHES."

P.450 :"ALTHOUGH IN SOME CASES THESE DEPOSITS MAY BE THE REMAINS OF PLANTS REPLACED BY METALLIC ORES, AS POINTED OUT BY PROFESSOR HIND, IT OFTEN HAPPENS THAT THE ORE FORMS THE MATRIX OF THE CONGLOMERATE, LIKE CALCSPAR AND HEMATITE, AND CONTAINS NO TRACES OF ORGANISMS. THE SPECIMENS WERE OF COURSE, SELECTED, AND IT IS DOUBTFUL WHETHER ANY

OF THESE BEDS ARE SUFFICIENTLY RICH TO BE PROFITABLY WROUGHT."

FIELD DESCRIPTION :

NSDME 1990

WE CHECKED THE LOCATION FOR THE LIMESTONE INDICATED BY FLETCHER AS OCCURRING ALONG RED BROOK. THE LIMESTONE DOES OUTCROP IN THIS AREA AS INDICATED, BUT NO MINERALIZATION WAS NOTED IN ANY OF THE OUTCROPS. LIMESTONE OUTCROPS ON THE HILL EAST OF RED BROOK . THE ROCKS NOTED IN RED BROOK CONSISTED OF RED BED CONGLOMERATES. THE CONGLOMERATE OUTCROP IN RED BROOK, AT A DISTANCE OF 50M FROM THE ROAD, APPEARS TO HAVE BEEN EXCAVATED. (SAMPLE K02-12(001). A CAVED PIT WAS NOTED EAST OF RED BROOK. IT IS NOT CLEAR WHETHER THIS IS MAN MADE OR NATURAL. SAMPLE K02-12(002) WAS TAKEN FROM A RUBBLY OUTCROP OF CONGLOMERATE LOCATED ON THE HILLSIDE EAST OF RED BROOK, NEAR THE LIMESTONE. ANOTHER SAMPLE HAD BEEN TAKEN FROM THIS OUTCROP (MW002).

THE MINERALIZATIN DESCRIBED IN THE LITERATURE COULD NOT BE LOCATED AT THIS LOCATION. THE OTHER LOCATION AT CROW POINT WAS NOT VISITED DUE TO A HIGH TIDE ALONG THE SHORE.

SAMPLE K02-12(01) GRAB SAMPLE OF CONGLOMERATE FROM RED BROOK

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\02 BADDECK, 1:50,000

GSC MAP 124 GEOLOGY, FLETCHER, ONE INCH TO ONE MILE, 1876 (NO LOCATION GIVEN FOR THE OCCURRENCE BUT THE LIMESTONE CONGLOMERATE CONTACT IS SHOWN)

BIBLIOGRAPHY :

HOW, H. :THE MINERALOGY OF NOVA SCOTIA, 1868, P45

FLETCHER, H.: GSC REPORT OF PROGRESS 1876-77, P438, 450

KELLEY,D.G; BADDECK AND WHYCOCOMAGH MAP AREA, GSC MEMOIR 351, 1967 (GENERAL GEOLOGY ONLY, NO DESCRIPTION OF THE OCCURRENCE)

NSDME AR 11K\02B 21-Q-47(01) GOLD, WASHABUCK

REMARKS :

THE LOCATION IS UNCERTAIN. THE LOCATIONS GIVEN ARE FOR THE CONTACT OF THE LIMESTONE ANC CONGLOMERATE

SHOWN ON FLETCHERS GEOLOGY MAP.THE MINERALIZED AREA WAS NOT LOCATED IN THE FIELD CHECK BUT THE CROW POINT LOCATION STILL MUST BE FIELD CHECKED.

VERIFICATION :

THE OCCURRENCE IS POORLY DESCRIBED FOR LOCATIONAL INFORMATION IN THE LITERATURE. ONE OF THE TWO LOCATIONS WAS FIELD CHECKED BY NSDME IN 1990 BUT NO MINERALIZATION COULD BE LOCATED.

ASSAY DATA

FLETCHER 1876 PAGE 450
ASSAYS BY DR HAYES OF BOSTON
1) 5 DWT AU PER TON
2) 3\10% CU AND 19 DWT 14GRS AU PER TON
3) 16 DWT 8GRS AU AND 6DWT 12 GRS AG PER TON

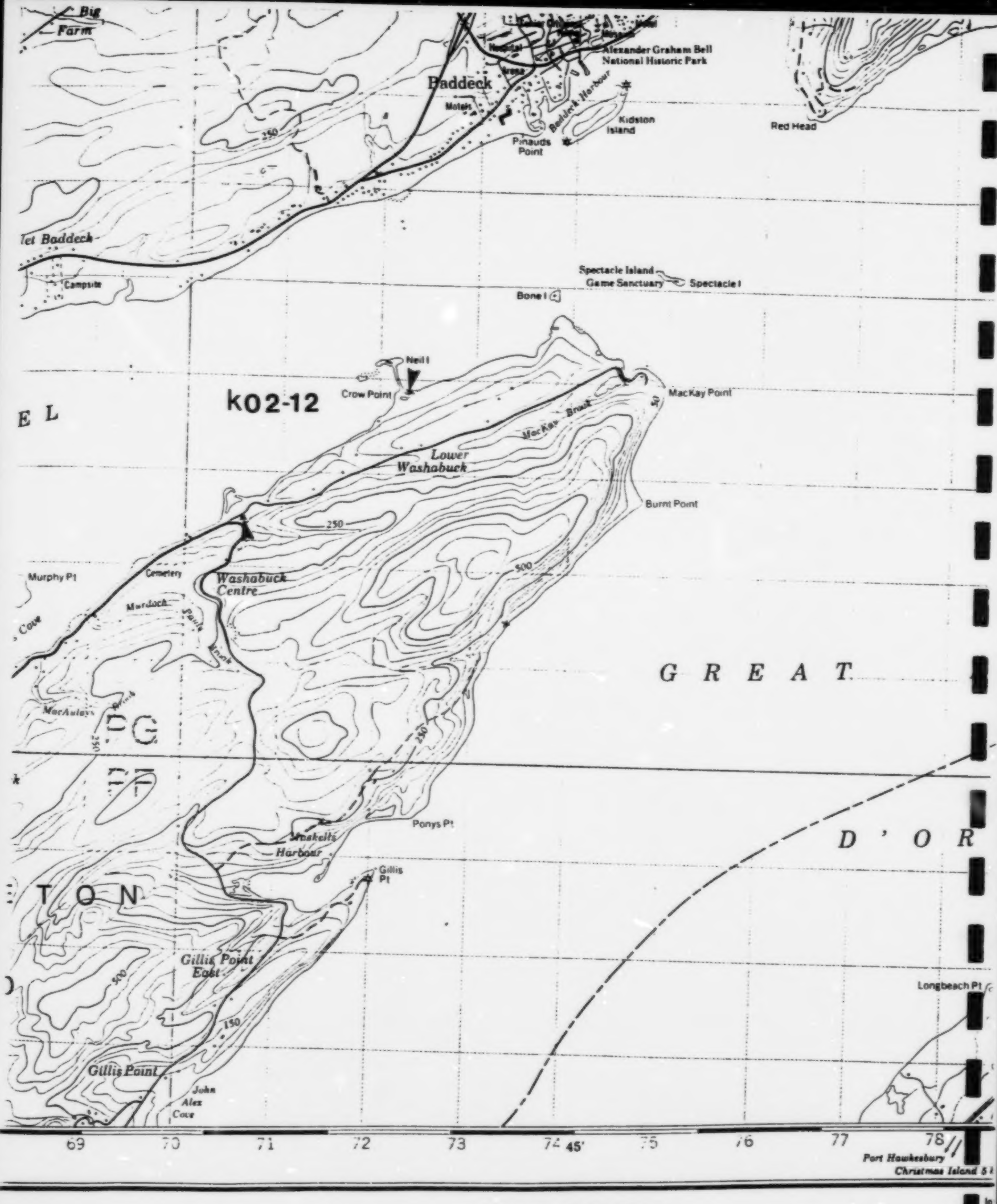
NSDME 1990

SAMPLE NUMBER		K02-12(01)
ELEMENT	UNITS	
NA	PCT	1.10
SC	PPM	6.1
CR	PPM	210
FE	PCT	1.6
CO	PPM	<10
NI	PPM	<20
ZN	PPM	<200
AS	PPM	1
SE	PPM	<10
BR	PPM	2
RB	PPM	57
ZR	PPM	<500
MO	PPM	<2
AG	PPM	<5
CD	PPM	<10
SN	PPM	<200
SB	PPM	<0.2
TE	PPM	<20
CS	PPM	1
BA	PPM	400
LA	PPM	21
CE	PPM	65
SM	PPM	5.6
EU	PPM	<2
TB	PPM	<1
YB	PPM	<5
LU	PPM	<0.5
HF	PPM	3
TA	PPM	<1
W	PPM	<2
IR	PPB	<100
AU	PPB	<5
TH	PPM	7.3

U	PPM	1.5
WT	g	13.83

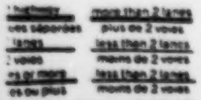
SURVEYS PERFORMED
GEOLOGY, LITHOGEOCHEMICAL, PROSPECTING

COMPILED BY :GARTH DEMONT, MARCH, 1989
UPDATED BY :GARTH DEMONT, NOV., 1990
FIELD CHECKED BY :G.DEMONT AND C.WILLIAMS, JULY,1990


Big
Farm
Hospital
Arena
Alexander Graham Bell
National Historic Park
Baddeck
Motels
Baddeck Harbour
Kidston
Island
Pinauds
Point
Red Head
250
let Baddeck
Campsite
Spectacle Island
Game Sanctuary
Spectacle I
Bone I
Neil I
Crow Point
K02-12
E L
MacKay Point
MacKay Brook
Lower
Washabuck
Burnt Point
250
500
Murphy Pt
Cemetery
Washabuck
Centre
Murdoch
Pauls
Brook
Cove
G R E A T
MacAulays
250
PG
Ponys Pt
Haskells
Harbour
D ' O R
Gillis
Pt
T O N
Gillis Point
East
500
150
Longbeach Pt
Gillis Point
John
Alex
Cove
69
70
71
72
73
74
45'
75
76
77
78
Port Hawkesbury
Christmas Island

BADDECK

NOVA SCOTIA


highway
more than 2 lanes
ées séparées
plus de 2 voies
lanes
less than 2 lanes
2 voies
moins de 2 voies
es or more
less than 2 lanes
es ou plus
moins de 2 voies

Scale 1:50 000 Échelle

Miles 1
0
1
2
3 Milles

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER :K02-13**

OCCURRENCE NAME : MCIVOR POINT

LOCATION

COUNTY : VICTORIA **CLAIM MAP :**11K\02B **TRACT :** 33 AND 29
CLAIM : G AND C

NORTHING : 5099640 AND 5099300 **EASTING :** 660630 AND 666920
ZONE : 20

DESCRIPTIVE LOCATION : NO MINERALIZATION WAS NOTED IN THE FIELD CHECK ALTHOUGH THE GEOLOGY IN THE AREAS INDICATED MATCHED THAT DESCRIBED IN THE LITERATURE. THE LOCATIONS FIELD CHECKED ARE AS FOLLOWS: 1) DRIVE TO THE END OF THE MCIVOR POINT ROAD. THE ROAD ENDS IN A GROWN OVER FIELD. A DRILL STEM PIPE FROM CHEVRON HOLE R-1 IS VISIBLE IN THE FIELD. FROM THE PIPE WE RAN A LINE AT 250 DEG T FOR 358 METRES TO THE LAKE SHORE. LIMESTONE OUTCROPS AT THIS POINT. THE OUTCROPS ARE IN THE LOCATION INDICATED IN THE LITERATURE. A PETROLIFEROUS LIMESTONE OUTCROP IS LOCATED 192M EAST OF THE RANGE LIGHT AT MCIVERS POINT. NO MINERALIZATION WAS VISIBLE IN ANY OF THE OUTCROPS . 2) MACDONALD BROOK IS LOCATED 3.5 KM FROM THE ROAD JUNCTION AT WASHABUCK BRIDGE. GREY LIMESTONE BLOCKS WERE NOTED AT THE BASE OF A CONGLOMERATE OUTCROP 20M EAST OF THE ROAD, ALONG THE BROOK. SMALL BLOCKS OF BROWN FOSSILIFEROUS LIMESTONE OCCUR SPORADICALLY IN THE BROOK IN THIS AREA. NO MINERALIZATION WAS NOTED IN THE LIMESTONE.

SUMMARY DESCRIPTION

MINERALIZATION : SPHALERITE AND GALENA **COMMODITY :** ZN AND PB

STRATIGRAPHIC UNIT : WINDSOR GROUP **AGE :** MISSISSIPPIAN

HOST ROCK : LIMESTONE

STATUS : AT MCIVOR POINT THE MINERALIZATION WAS REPORTED IN OUTCROP. ON FIELD BROOK(MACDONALD BROOK) THE MINERALIZATION WAS REPORTED IN FLOAT.

GEOLOGICAL ENVIRONMENT :

EXERPTS FROM GSC MEMOIR 351, D.G. KELLEY:

" MISSISSIPPIAN SEDIMENTARY ROCKS IN THE MARITIME PROVINCES HAVE MOST COMMONLY BEEN DIVIDED INTO THREE GROUPS : THE LOWER MISSISSIPPIAN HORTON GROUP AND THE UPPER MISSISSIPPIAN WINDSOR AND CANSO GROUPS.

LOWER MISSISSIPPIAN ROCKS OF THE HORTON GROUP ARE PROBABLY CONTINENTAL IN ORIGIN, AS SUGGESTED BY THE PRESENCE OF A TERRESTRIAL FLORA AND THE LACK OF MARINE FOSSILS. UPPER MISSISSIPPIAN ROCKS OF THE WINDSOR GROUP ARE CHIEFLY MARINE AS INDICATED BY THE NUMEROUS FOSSILS FOUND IN WINDSOR LIMESTONES.

THE LOWER MISSISSIPPIAN HORTON GROUP CONSISTS OF CONGLOMERATE, ARKOSE SANDSTONE, SILTSTONE, SHALE, AND MINOR LIMESTONE. THE UPPER MISSISSIPPIAN WINDSOR GROUP CONSISTS OF SILTSTONE, SHALE, SANDSTONE, LIMESTONE, GYPSUM, ANHYDRITE AND SALT IN THE CENTRAL PART OF THE BASIN, AND CONGLOMERATE, SANDSTONE, SILTSTONE, LIMESTONE, AND POSSIBLY SOME GYPSUM IN MARGINAL AREAS OF THE BASIN."

REFERENCE DESCRIPTION :

AR 27-Q-35(01): " VALUES OF 0.38% PB AND 0.085% ZN WERE OBTAINED FROM A LIMESTONE OUTCROP ON THE TOP OF MCIVOR POINT. THE UNIT IS A GREY, SOMEWHAT DENSE BUT POROUS LIMESTONE (SUBZONE C) APPROXIMATELY 25-35 FEET THICK."

AR 27-Q-35(01) :" THE FAULT ZONE ALONG FIELD BROOK ON THE SOUTHERN BOUNDARY OF TRACT 29, JUST OFF THE PROPERTY IS OF PARTICULAR INTEREST. THIS IS THE ONLY LOCALITY WHERE A SUBZONE B REEFAL DOLOMITE IS KNOWN TO OCCUR IN THE WASHABUCK AREA. THE UNIT CONSISTS OF A LIGHT GREYISH BROWN, MASSIVE, VERY FOSSILIFEROUS REEFAL HORIZON THAT CONTAINS UP TO 0.63% PB AND 0.74% ZN. THE BASAL LIMESTONE UNIT OVERLYING THE AINSLIE FORMATION AT THIS LOCALITY ALSO CONTAINS UP TO 0.28%PB."

FIELD DESCRIPTION :

NO MINERALIZATION WAS LOCATED AT EITHER OF THE LOCATIONS LISTED, HOWEVER, THE GEOLOGY MATCHED THAT DESCRIBED IN THE LITERATURE. AT MCIVOR POINT THERE ARE SEVERAL SMALL OUTCROPS OF GREY LIMESTONE LOCATED EAST OF THE RANGE LIGHT. THE LIMESTONE IS PETROLIFEROUS IN AT LEAST ONE OF THE OUTCROPS. NO SAMPLES WERE TAKEN.

ON MACDONALD BROOK (FIELD BROOK) THE ROCKS NOTED IN THE BROOK MATCHED THAT DESCRIBED IN THE LITERATURE BUT NO MINERALIZATION COULD BE LOCATED. NO SAMPLES WERE TAKEN.

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\02 BADDECK, 1:50,000

BIBLIOGRAPHY :

NSDME AR 11K\02B 27-Q-35(01) LEAD, WASHABUCK

KELLEY, D.G., BADDECK AND WHYCOCOMAGH MAP AREAS, GSC MEMOIR 351, 1967 (GENERAL GEOLOGY ONLY NO DESCRIPTION OF THE OCCURRENCE)

REMARKS :

NO MINERALIZATION WAS NOTED IN THE 1990 FIELD CHECK. THE GEOLOGY MATCHES THAT DESCRIBED IN THE LITERATURE . THE MINERALIZATION IS PROBABLY OF LIMITED EXTENT.

VERIFICATION :

THE OCCURRENCES ARE WELL DESCRIBED IN THE LITERATURE BUT COULD NOT BE CONFIRMED IN A 1990 FIELD CHECK BY NSDME.

ASSAY DATA

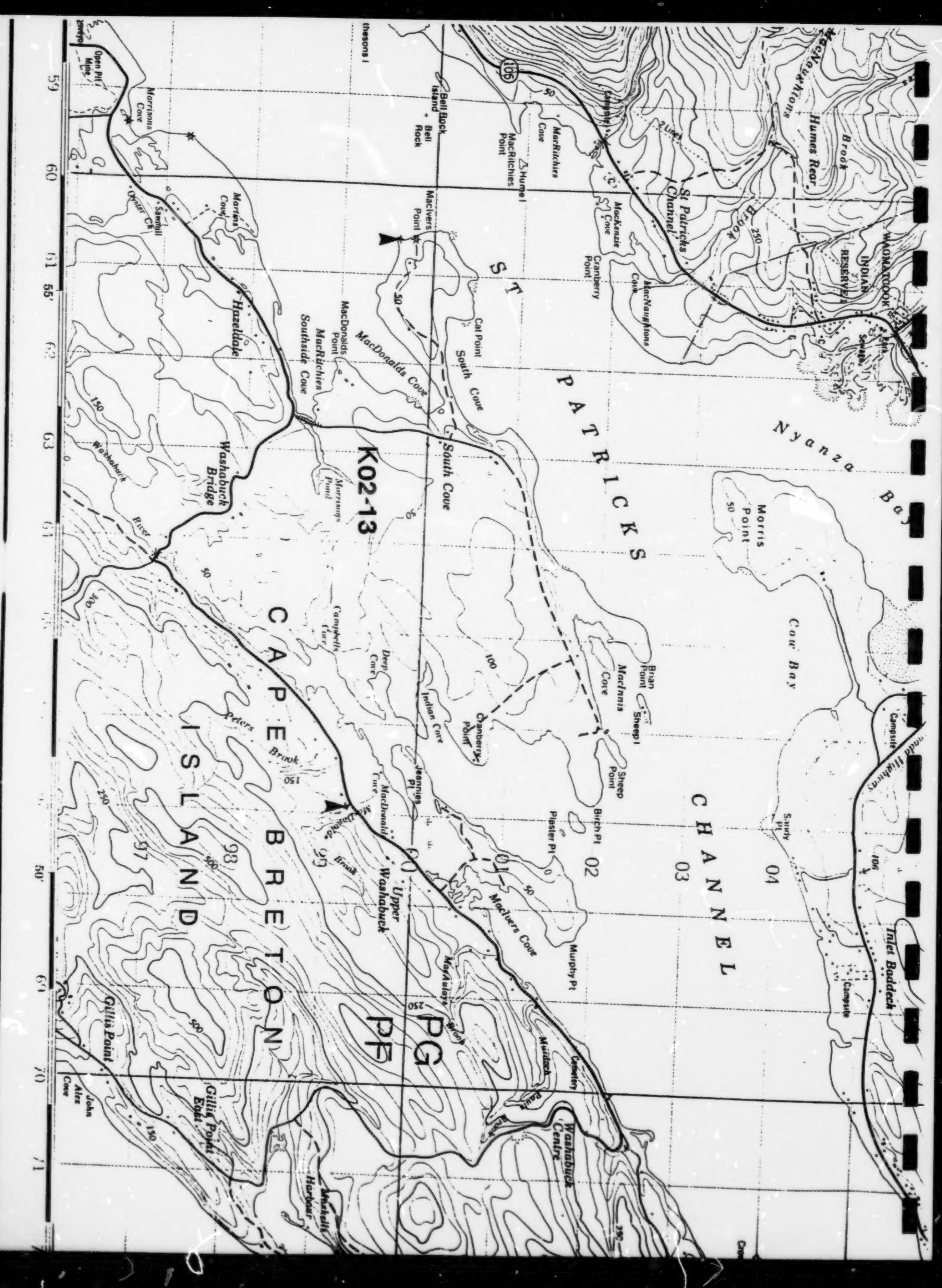
AR 27-Q-35(01)

MCIVOR POINT	OUTCROP	0.38%PB	, 0.085% ZN
FIELD BROOK	FLOAT	0.63%PB	, 0.74% ZN

SURVEYS PERFORMED

GEOLOGY, SOIL GEOCHEMISTRY

COMPILED BY :GARTH DEMONT, MARCH, 1989
UPDATED BY :GARTH DEMONT, DEC.,1990
FIELD CHECKED BY :G.DEMONT AND C. WILLIAMS, JULY, 1990


K02-13
PG
PF
ST PATRICKS CHANNEL
CAPE BRETON ISLAND
Nyanza Bay
Cow Bay
St Patricks Channel
WAGMATCOOK
INDIAN RESERVE
Hume Rear
Brook
MacNaughtons
Campsite
106
Inlet Baddeck
Morris Point
Sandy Pt
MacKenzie Cove
Cranberry Point
MacNaughtons Cove
MacRitchies Cove
MacRitchies Point
Hummel
Bell Rock Island
Bell Rock
MacIvers Point
Cat Point
South Cove
MacDonalds Cove
MacDonalds Point
MacRitchies Southside Cove
Morrisons Pond
Hazeldale
Martins Cove
Sawmill
Oyster Ck
Norrisons Cove
Open Pit Mine
Mathesons I
Washabuck Bridge
Washabuck River
Campbells Cove
Deep Cove
Indian Cove
Jeannies Pt
Brian Point
MacInnis Cove
Sheep I
Sheep Point
Cranberry Point
Birch Pt
Pipster Pt
Peters Brook
MacDonalds Cove
MacDonalds Brook
Upper Washabuck
MacIvers Cove
Murphy Pt
MacAskills Brook
Matilach
Cemetery
Washabuck Centre
Gillis Point
Gillis Point East
John Alex Cove
Harbour
50
100
150
250
300
500
59
60
61
55'
62
63
64
65
97
98
99
00
01
02
03
04
50'
69
70
71

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER :**K02-14

OCCURRENCE NAME : YANKEE LINE ROAD

LOCATION

COUNTY : VICTORIA **CLAIM MAP :**11K\02C **TRACT :** 8 AND 17
CLAIM : N AND C

NORTHING : 5111110 AND 5111390 **EASTING :** 661140 AND 661660
ZONE : 20

DESCRIPTIVE LOCATION : THE PRINCIPAL OCCURRENCE DESCRIBED IN THE LITERATURE IS LOCATED ALONG YANKEE LINE ROAD APPROXIMATELY 1KM WEST OF THE JUNCTION OF THE YANKEE LINE ROAD AND THE CABOT TRAIL. (COORDINATES 1) A SECOND OCCURRENCE OF MINERALIZATION IS REPORTED IN OUTCROP ALONG THE WEST SIDE OF THE CABOT TRAIL SOUTH OF THE JUNCTION WITH YANKEE LINE ROAD.(AR 27-Q-12(03))(COORDINATES 2) THE ORIGINAL OCCURRENCE DESCRIBED ALONG YANKEE LINE ROAD IS NO LONGER VISIBLE. THE HILL HAS BEEN CUT BACK FROM THE ROAD OBLITERATING THE OLD OCCURRENCE BUT PROVIDING NEW ROCK EXPOSURES.

SUMMARY DESCRIPTION

MINERALIZATION : CHALCOPYRITE, BARITE, GALENA, FLUORITE, CELESTITE AND PYRITE **COMMODITY :** CU, BA, FL, PB, SR AND FE

STRATIGRAPHIC UNIT : WINDSOR GROUP AND HORTON GROUP **AGE :** MISSISSIPPIAN

HOST ROCK : LIMESTONE

STATUS : THE MINERALIZATION IS FOUND IN OUTCROP AND DRILL CORE.

GEOLOGICAL ENVIRONMENT :

JONES AND COVERT:" THE HORTON GROUP SEDIMENTARY ROCKS ON TO WHICH THE BASAL WINDSOR LIMESTONES WERE DEPOSITED SHOW A HIGH VARIABILITY IN TEXTURE AND COLOUR. THE ROCKS ARE RED CONGLOMERATE AND COARSE SANDSTONES FOR THE MOST PART, ALTHOUGH GREEN-GREY SEDIMENTARY ROCKS CONTAINING MUCH CARBONACEOUS MATERIAL OCCURS SOUTH OF THE MAIN SHOWING. THE TOP OF THE HORTON GROUP IS IN NEARLY ALL OUTCROPS MARKED BY A FOOT OR TWO OF VERY FRIABLE SANDSTONE.

THE BASAL WINDSOR (A1) LIMESTONE IS UP TO 50 TO 60 FEET THICK AT THE YANKEE LINE LOCALITY. THE LAMINATED LIMESTONES ARE OVERLAIN BY THICKLY BEDDED, FOSSILIFEROUS (A2 OR B1) THAT ARE PROBABLY NOT MORE THAN 40 TO 50 FEET THICK. THIS, IN TURN, IS OVERLAIN BY GYPSUM WITH MINOR SHALE AND LIMESTONE, THAT AT HOLE YL-2 IS AT LEAST 350 FEET THICK. APPROXIMATELY 1000 FEET NORTH OF LOWER MIDDLE RIVER, A RIDGE OF 'B-TYPE' HIGHLY FOSSILIFEROUS LIMESTONE OUTCROPS ALONG HIGHWAY 19. THIS PRESUMABLY OVERLIES THE GYPSUM, OR REPRESENTS A MOUND WITHIN IT. AS FAR AS IS KNOWN, THE BARITE AND GALENA MINERALIZATION IS RESTRICTED TO THE BASAL WINDSOR LAMINATED LIMESTONES.

THE SHOWING IS LOCATED ON THE STEEP WEST LIMB OF AN OPEN ASSYMETRIC ANTICLINE THAT TRENDS NORTHEASTERLY, AND PLUNGES 20 TO 25 DEGREES TO THE NORTH, THE AXIAL PLANE OF THE STRUCTURE DIPS TO THE EAST, PROBABLY STEEPLY."

REFERENCE DESCRIPTION :

JONES AND COVERT :" A NEW BARITE-GALENA OCCURRENCE HAS BEEN LOCATED IN THE BASAL WINDSOR LIMESTONE THAT OUTCROPS EXTENSIVELY ALONG THE YANKEE LINE ROAD, APPROXIMATELY 1500 FEET SOUTH OF ITS JUNCTION WITH THE CABOT TRAIL. THE BARITE OCCURS BOTH AS SPOTTY REPLACEMENT OF THE LIMESTONE, AND AS VEIN FILLINGS AND FRACTURE COATINGS. SMALL AMOUNTS OF VISIBLE BARITE AND GALENA OCCUR WITHIN THE LIMESTONE OVER A STRIKE LENGTH OF 1,000 TO 1,500 FEET ALONG THE ROAD. A STRONG CONCENTRATION OF BARITE VEINS OCCURS IN A LENSOID LATTICEWORK APPROXIMATELY THREE FEET IN WIDTH LOCATED NEARLY IN THE CENTRE OF THE MINERALIZED ZONE. THE BARITE IS ASSOCIATED WITH MINOR AMOUNTS OF DEEP PURPLE FLUORITE, CELESTITE AND CALCITE. THE GALENA IS DISSEMINATED THROUGHOUT THE LIMESTONE THAT CONTAINS BARITE MINERALIZATION, BUT DOES NOT VARY IN CONCENTRATION SYMPATHETICALY WITH THE BARITE. TRACES OF MALACHITE HAVE BEEN FOUND IN THE COARSE SEDIMENTS OF THE HORTON GROUP THAT UNDERLIE THE BASAL WINDSOR LIMESTONE. THIS COPPER MINERALIZATION IS APPARENTLY RELATED TO COALIFIED PLANT FRAGMENTS AND ORGANIC TRASH WITHIN THE SANDSTONES, AND IS NOT OF ECONOMIC IMPORTANCE."

FELDERHOF:" THE HOST ROCK IS A GREY,

FINE-GRAINED, THINLY LAMINATED LIMESTONE WHICH GENERALLY STRIKES 063DEG AND DIPS FROM 25 TO 50DEG TOWARDS THE NORTHEAST. THIS ROCK APPEARS TO ATTAIN A THICKNESS OF APPROXIMATELY 30FEET AND FORMS PART OF THE A-SUBZONE OF THE WINDSOR GROUP IN THIS AREA. THIS UNIT OVERLIES THE AINSLIE MEMBER WHICH IS COMPOSED OF RED-BROWN CONGLOMERATE, SANDSTONE, SILTSTONE AND MINOR GREY SANDSTONE. NO BARITE WAS NOTED IN THE HORTON ROCKS THOUGH MINOR MALACHITE WAS OBSERVED AS DISSEMINATIONS IN A PEBBLE CONGLOMERATE.

THE MINERALIZATION WAS STRUCTURALLY CONTROLED, WITH BARITE OCCUPYING A SMALL FAULT ZONE AND FILLING FRACTURES CLOSELY RELATED TO THE FAULT. PARTIAL REPLACEMENT OF BRECCIATED FRAGMENTS OF THE HOST ROCK WITHIN THE FAULT, AS WELL AS SPOTTY REPLACEMENT OF THE WALL ROCK IS SUGGESTED BY SMALL, ISOLATED FRAGMENTS OF THE HOST ROCKS FOUND WITHIN THE BARITE CRYSTALS."

AR 27-Q-12(03);" THE LIMESTONE IS MEDIUM GREY, COMPOSED OF LAMINAE AVERAGING 0.5CM IN THICKNESS AND IS TYPICALLY VERY FINE GRAINED AND DENSE SUCH THAT CONCHOIDAL FRACTURING OF THE ROCK IS COMMON. A CORRUGATED TEXTURE IS OFTEN PROMINENT ON WEATHERED SURFACES DUE TO MINOR PREFERENTIAL EROSION OF THE MORE SHALY PARTINGS BETWEEN LAMINAE. LOW GRADE DISSEMINATED GALENA AND PYRITE OR MARCASITE ARE COMMON AND BARITE, FLUORITE, AND BORNITE HAVE ALSO BEEN NOTED. ASSAY VALUES OF UP TO 4.68%PB AND 4.47%ZN WERE FOUND IN TWO VERY ZONES SEVERAL INCHES IN EACH DIMENSION. VALUES FROM WITHIN MORE WIDESPREAD, WEAKLY MINERALIZED SECTION RAN FROM 0.06 TO 0.07% COMBINED LEAD AND ZINC."

FOUR HOLES WERE DRILLED ON THE OCCURRENCE BY NSDME IN 1972. THE DRILLING INDICATED LOW GRADE MINERALIZATION.

FIELD DESCRIPTION :

THIS OCCURRENCE WAS VISITED PRIMARILY OUT OF INTEREST TO SEE A WELL DOCUMENTED OCCURRENCE OF MINERALIZATION AT THE HORTON WINDSOR CONTACT. WE STARTED AT A DISTANCE OF 1.4KM WEST OF THE JUNCTION YANKEE LINE ROAD AND THE CABOT TRAIL AT MIDDLE RIVER. THIS IS APPROXIMATELY 300 METRES SOUTH OF A BRIDGE ON THE YANKEE LINE ROAD. A LARGE OUTCROP AREA IS EXPOSED IN THE ROAD CUT ON THE SOUTH SIDE OF THE ROAD. THE ROCKS EXPOSED HERE ARE A GREY LAMINATED (A1) LIMESTONE AND A GREY BROWN PETROLIFEROUS LIMESTONE. BEDDING PARALLEL SLIKENSLIDING IS VISIBLE ON THE EXPOSED BEDDING SURFACES. SMALL AMOUNTS OF DISSEMINATED GALENA CAN BE SEEN IN THE PETROLIFEROUS LIMESTONE.

AT A DISTANCE OF 0.7KM TO 1.0 KM WEST OF THE ROAD JUNCTION, THERE IS A LARGE RECENT ROAD CUT ON THE SOUTH SIDE OF THE YANKEE LINE ROAD. THE DOCUMENTED MINERAL OCCURRENCE WAS REPORTED IN THIS

AREA BUT IT HAS BEEN OBLITERATED BY THE RECENT EXCAVATION. ON THE WEST END OF THIS CUT, THE WINDSOR HORTON CONTACT IS CLEARLY VISIBLE. (1.0KM FROM THE ROAD JUNCTION) THE CONTACT IS DEFINED BY A 15-20CM THICK MASSIVE BROWN SANDSTONE. OVERLYING THE SANDSTONE IS A GREY MASSIVE LIMESTONE UNIT AND UNDERLYING IT IS A FRIABLE PEBBLE CONGLOMERATE UNIT WHICH SHOWS MALACHITE STAIN IN SMALL PATCHES. THE BEDS AT THIS POINT ARE NEARLY HORIZONTAL , OR HAVE A SHALLOW NORTWEST DIP. THREE HUNDRED METRES FURTHER EAST ALONG THE SAME ROAD CUT, THE DIP OF THE ROCKS HAS CHANGED TO A STEEP DIP TO THE NW. (0.7KM WEST OF THE ROAD JUNCTION) THE SAME LITHOLOGIES ARE VISIBLE. THE DRAMATIC CHANGE IN DIP IS PROBABLY RELATED TO FAULTING. A NEAR VERTICAL FAULT GOUDGE ZONE IS VISIBLE BETWEEN THE SHALLOW DIPPING AREA AND THE STEEP DIPPING AREA. THE FAULT IS PROBABLY THE SAME FAULT WHICH HOSTED THE OCCURRENCE DESCRIBED IN THE LITERATURE. THE EXTENT OF THE FAULT IS UNKNOWN.

MALACHITE STAINING IS VISIBLE IN SMALL PATCHES ALONG THE THE STEEPLY DIPPING HORTON CONTACT. THE MALACHITE STAINS THE UPPER HORTON PEBBLE CONGLOMERATE AND SANDSTONE (THIS MINERALIZATION IS TYPICAL FOR THE UPPER HORTON CONGLOMERATE).

A SMALLER OUTCROP IS LOCATED APPROXIMATELY 100 METRES EAST OF THE LARGE CUT. (0.6KM WEST OF THE ROAD JUNCTION) IT IS A 1M BY 1M RUBBLY OUTCROP OF A GREY TO BROWN VUGGY PETROLIFEROUS LIMESTONE. LESS THAN 1% WHITE CHALKY BARITE IS VISIBLE IN THE LIMESTONE, APPARENTLY AS VUG FILLINGS.

SAMPLES

K02-14(01) GRAB SAMPLE OF THE OUTCROP OF GREY-BROWN PETROLIFEROUS LIMESTONE- STRONG OIL SMELL- CUT BY THIN WHITE CALCITE VEINLETS (1.4KM WEST OF THE ROAD JUNCTION)

K02-14(02) GRAB SAMPLE OF GREY BROWN LIMESTONE OUTCROP-CUT BY 1CM WHITE CALCITE VEIN-DISSEMINATED GALENA FOUND IN THE CALCITE VEIN (1.4KM WEST OF THE ROAD JUNCTION)

K02-14(03) COMPOSITE SAMPLE OF ROCK AT THE HORTON WINDSOR CONTACT. SAMPLES OF GREY MASSIVE LIMESTONE(WINDSOR)-MINOR DISSEMINATED GALENA-BROWN THIN MASSIVE 15-20CM THICK MASSIVE SANDSTONE WHICH DEFINES THE CONTACT OF THE HORTON AND WINDSOR AND UNDERLIES THE LIMESTONE AND A LIGHT BROWN TO GREY FRIABLE CONGLOMERATE AND SANDSTONE (HORTON) WHICH UNDERLIE THE SANDSTONE. THE CONGLOMERATE WAS MALACHITE STAINED IN ISOLATED PATCHES. THE SAMPLE ANALYZED WAS THE CONGLOMERATE PORTION OF THE SAMPLES (LOCATED 1.0KM WEST ROAD JUNCTION)

K02-14(04) SELECT SAMPLE OF MALACHITE STAINED SANDSTONE AND CONGLOMERATE AT THE TOP OF THE HORTON. THE SAMPLE WAS COLLECTED ALONG THE THE STEEPLY DIPPING FACE WEST OF THE FAULT (0.7KM WEST OF THE ROAD JUNCTION) THE SAMPLES TAKEN WERE SELECTED DUE TO THEIR HIGH MALACHITE STAIN SO THEY DO NOT REPRESENT THE TENORE OF THE MINERALIZATION.

K02-14(05)(06) GRAB SAMPLES OF GREY TO GREY BROWN VUGGY PETROLIFEROUS LIMESTONE OUTCROP. WHITE CHALKY BARITE AND MINOR MALACHITE STAIN IN SMALL PATCHES. THE OUTCROP IS APPROXIMATELY 1M BY 1M.

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\02 BADDECK, 1:50,000

BIBLIOGRAPHY :

JONES, B.E, AND T.G.N. COVERT, GEOLOGY OF MIDDLE RIVER AND BADDECK FORKS MAP AREAS, NSDME MISS. PUBL., 1972

FELDERHOF, G.W, BARITE, CELESTITE AND FLUORITE IN NOVA SCOTIA, NSDME BULLETIN NO. 4, 1978, P 403-408

NSDME AR 11K\02C 27-Q-12(03) LEAD-ZINC, MIDDLE RIVER

NSDME AR 11K\02C 07-Q-12 (01)(03) BASE METALS, MIDDLE RIVER

REMARKS :

THE MINERALIZATION IS ASSOCIATED WITH A CU, PB, ZN SOIL GEOCHEMICAL ANOMALY.(ASSESSMENT FILES) THE AREA APPEARS TO BE STRUCTURALLY COMPLEX. THERE WOULD APPEAR TO BE MORE FAULTING THAN THAT INDICATED ON THE GEOLOGY MAPS. THERE IS SOME POTENTIAL FOR STRUCTURALLY CONTROLLED MINERALIZATION IN THIS AREA. THE MINERALIZED OUTCROP ALONG THE CABOT TRAIL WAS NOT ASSESSED IN THE 1990 FIELD CHECK.

VERIFICATION :

THE OCCURRENCE WAS FIRST LOCATED IN THE FIELD BY NSDME IN 1972. THE OCCURRENCE DESCRIBED IN THE FIELD HAS NOW BEEN REMOVED BY RECENT EXCAVATION. (1990)

ASSAY DATA

JONES AND COVERT 1972

SAMPLE	SECTION	BA%	SR%	F%	PB%	CU%
8.33-1	FLOAT	0.06	0.06	0.15	0.01	.0015
8.33-2	3FEET	2.80	0.15	0.04	0.01	.0015
8.33-3	4FEET	0.18	0.07	0.03	0.005	.0015
8.33-4	3FEET	0.04	0.28	0.03	0.01	.0025
8.33-5	1.5FEET	0.40	0.10	0.08	0.005	.0015
8.33-6	1FOOT	0.05	0.06	0.06	0.025	.0025
8.33-7	5FEET	0.16	0.13	0.10	0.01	.0015
8.33-8	3FEET	0.06	0.06	0.06	0.01	.0015
8.33-9	6FEET	0.26	0.08	0.10	0.005	.0015
8.33-10	3FEET	37.1	1.5	0.09	0.005	.0025

FELDERHOF

		%			PPM		
ROCK TYPE	SAMPLE NO	BASO4	SRSO4	F	CU	PB	ZN
BARITE, LIMESTONE, MINOR GALENA	K02-5000	60.42	1.64	.04	50	4700	12
RED BROWN CONGLOMERATE	K02-5001	.65	.04	.03	60	30	50
BARITIFEROUS LIMESTONE	K02-5002	32.70	.62	.04	30	570	40
BARITE, LIMESTONE	K02-5003	78.0	1.93	.03	1030	140	130
LIMESTONE	K02-5004	1.44	.17	.04	40	1250	50
BARITIFEROUS LIMESTONE	K02-5005	36.12	.36	.03	40	650	70

NSDME 1990

BONDAR CLEGG AU+33

SAMPLE		K02-14(03)	(04)	(05)	(06)
ELEMENT	UNITS				
NA	PCT	0.16	0.95	0.7	0.11
SC	PPM	1.5	4.8	0.6	1.2
CR	PPM	<50	230	<50	<50
FE	PCT	<0.5	2.3	<0.5	0.6
CO	PPM	<10	15	<10	<10
NI	PPM	<20	<20	<20	<20
ZN	PPM	480	<200	<200	<200
AS	PPM	13	32	2	5
SE	PPM	<10	<10	<10	<10
BR	PPM	2	2	2	1
RB	PPM	10	35	<10	15
ZR	PPM	<500	<500	<500	<500
MO	PPM	<2	3	2	4
AG	PPM	<5	35	<5	<5
CD	PPM	<10	<10	<10	<10
SN	PPM	<200	<200	<200	<200
SB	PPM	0.4	0.7	<0.2	0.5
TE	PPM	<20	<20	<20	<20
CS	PPM	<1	1	<1	<1
BA	PPM	480	8900	<100	1800
LA	PPM	6	28	<5	5
CE	PPM	13	79	<10	19
SM	PPM	1.0	5.6	<0.2	0.6

EU	PPM	<2	<2	<2	<2
YB	PPM	<1	<1	<1	<1
LU	PPM	<0.5	<0.5	<0.5	<0.5
HF	PPM	<2	11	<2	<2
TA	PPM	<1	<1	<1	<1
W	PPM	<2	<2	<2	<2
IR	PPB	<100	<100	<100	<100
AU	PPB	<5	7	<5	<5
TH	PPM	1.2	7.4	<0.5	1.2
U	PPM	3.0	4.0	6.1	7.5
WT	g	13.27	13.37	13.44	12.46

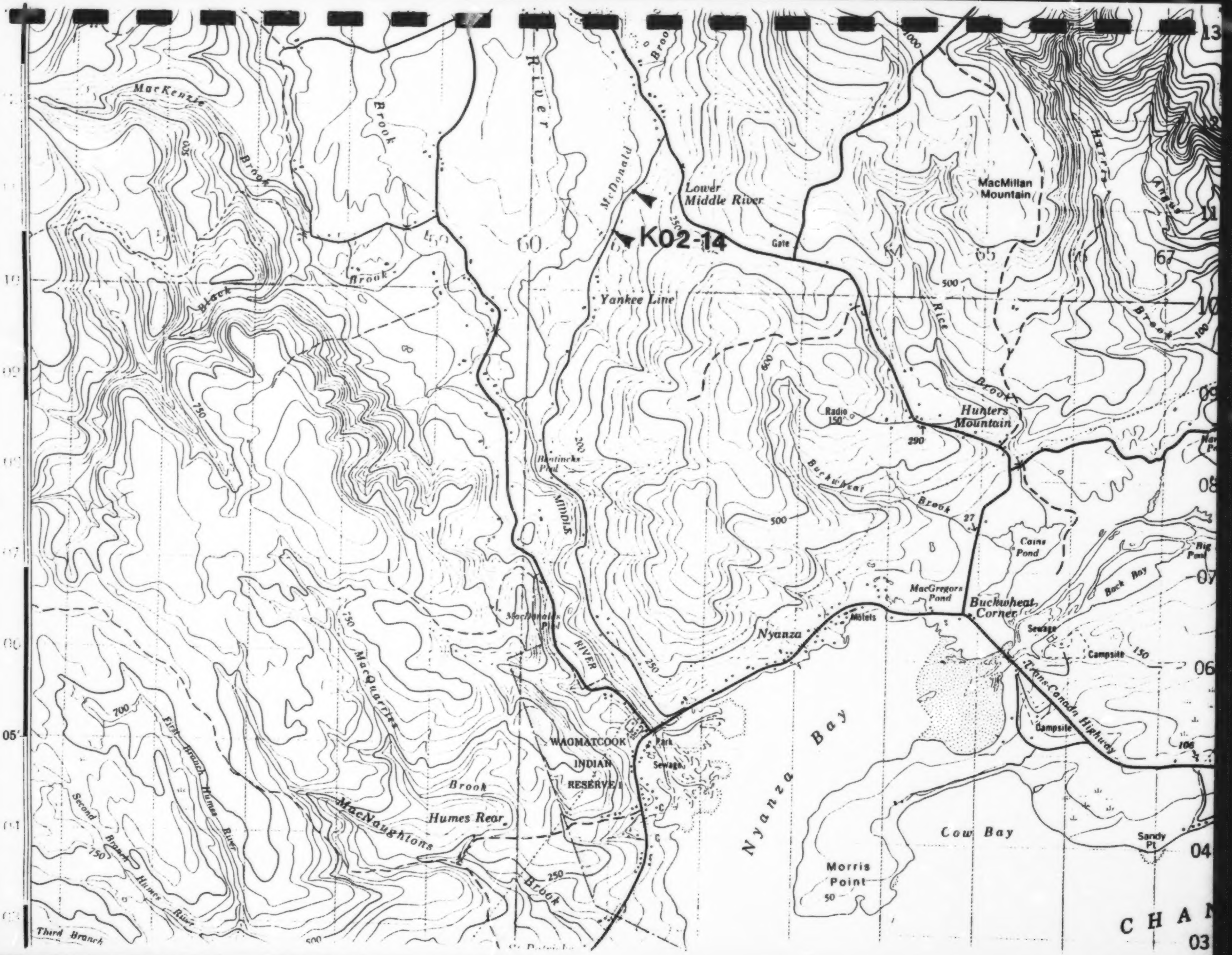
BONDAR CLEGG ATOMIC ABSORPTION

SAMPLE		K02-14(03)	(04)	(05)	(06)
ELEMENT	UNITS				
CU	PPM	29	>20,000	99	29
ZN	PPM	374	79	66	96
PB	PPM	1018	255	253	680

SURVEYS PERFORMED

GEOLOGY, SOIL GEOCHEMISTRY, DRILLING

COMPILED BY :GARTH DEMONT, MARCH, 1989
UPDATED BY :G.DEMONT, JAN., 1991
FIELD CHECKED BY :G.DEMONT AND C.WILLIAMS, AUG, 1990


K02-14
MacKenzie Brook
Brook
River
McDonald
Lower Middle River
Gate
MacMillan Mountain
Harris
60
65
67
13
12
11
10
09
08
07
06
05'
04
03
500
750
1000
Black Brook
Brook
Yankee Line
Rice Brook
Radio 150
290
Hunters Mountain
Bentincks Pool
MIDDLE
200
600
500
Buckwheat Brook
27
Cains Pond
Big Pond
Back Bay
MacGregors Pond
Buckwheat Corner
Motels
Nyanza
MacDonalds Pool
RIVER
250
Sewage
Campsite
150
Trans-Canada Highway
Campsite
106
MacQuarries
700
First Branch Humes River
WAGMATCOOK INDIAN RESERVE 1
Park
Sewage
Nyanza Bay
Brook
Humes Rear
MacNaughtons Brook
Second Branch Humes River
Third Branch
Cow Bay
Sandy Pt
Morris Point
50
CHAN

OCCURRENCE NAME : MURPHY BROOK

LOCATION

COUNTY : INVERNESS **CLAIM MAP :**11K\06A **TRACT :** 3 **CLAIM :** B

NORTHING : 5123460 AND 5123480 **EASTING :** 650270 AND 650360
ZONE : 20

DESCRIPTIVE LOCATION : TAKE THE BIG BROOK TURNOFF OFF THE THE CABOT TRAIL AT EMERALD. TRAVEL SOUTH ALONG THIS ROAD FOR 2.4KM TO A SPLIT IN THE ROAD. TAKE THE WEST BRANCH AND TRAVEL SOUTH FOR ANOTHER 5.2KM TO THE BRIDGE OVER MURPHY BROOK. THE OCCURRENCE IS LOCATED 880 METRES SOUTH EAST OF THE BRIDGE, ALONG THE BROOK. CARE MUST BE TAKEN IN MEASURING THE DISTANCE AS THE OCCURRENCE IS EASILY OVER LOOKED. THE DUMP IS GROWN OVER AND THE ADITS COLLAPSED.

SUMMARY DESCRIPTION

MINERALIZATION : HUBNERITE, CHALCOPYRITE, SCHEELITE, WOLFRAMITE? AND SPECULARITE? **COMMODITY :** W, CU AND FE

STRATIGRAPHIC UNIT : GILLANDERS MOUNTAIN METAMORPHIC UNIT AND GILLANDERS MOUNTAIN INTRUSIVE COMPLEX **AGE :** HADRYNIAN

HOST ROCK : BIOTITE MONZOGRANITE AND SCHISTOSE METABASITE

STATUS : THE MINERALIZATION IS REPORTED IN FLOAT, OUTCROP AND IN TWO OLD ADITS (1880'S).

GEOLOGICAL ENVIRONMENT :

FRENCH, V.A,(MSC. THESIS) :" THE GILLANDERS MOUNTAIN INTRUSIVE COMPLEX CONSISTS OF VARIED DIORITIC ROCKS, BIOTITE MONZOGRANITE, AND SYENOGRANITE WHICH HAVE INTRUDED SCHIST, PARAGNEISS AND AMPHIBOLE INFERRED TO BE OF LATE HADRYNIAN AGE. THE MONZOGRANITE AND THE SYENOGRANITE GIVE WHOLE ROCK RB-SR AGES OF 379+-19MA AND 341 +- 6MA, RESPECTIVELY, AND ARE PART OF A LARGE BELT OF DEVONO-CARBONIFEROUS GRANITOID ROCKS IN THE CAPE BRETON HIGHLANDS. THE DIORITIC UNIT IS INFERRED TO BE LATE HADRYNIAN TO CAMBRIAN IN AGE ON THE BASIS OF FIELD RELATIONS AND PETROLOGY.

THE BIOTITE MONZOGRANITE AND SYENOGRANITE HAVE TRANSITIONAL I- TO A-TYPE CHEMICAL AFFINITIES. THE COMPOSITION OF THE SYENOGRANITE HAS BEEN MODIFIED BY NEAR SURFACE PROCESSES WHICH PRODUCED A ZONED MAGMA CHAMBER. THE SYENOGRANITE IS APPARENTLY SUBVOLCANIC TO CARBONIFEROUS RHYOLITE FLOWS OF THE FISSET BROOK FORMATION, AND IT MAY HAVE ACTED AS THE SOURCE OF FLUIDS WHICH PRODUCED SIGNIFICANT BARITE AND FLUORITE MINERALIZATION IN THE FISSET BROOK FORMATION."

REFERENCE DESCRIPTION :

WALKER 1909:" THE HUBNERITE OCCURS IN CRYSTALS AND CRYSTAL CLUSTERS SCATTERED THROUGH A MILKY QUARTZ MASS. ASSOCIATED WITH THE HUBNERITE IS A SMALL AMOUNT OF CHALCOPYRITE, AND ALSO A SOFT, BLACK, EARTHY SUBSTANCE, PROBABLY AN OXIDE OF MANGANESE RESULTING FROM THE DECOMPOSITION OF THE HUBNERITE. NEAR MURPHYS BROOK A BLOCK OF QUARTZ HUBNERITE ORE WAS DISCOVERED, AND THIS, WHEN BROKEN UP, YIELDED ABOUT HALF A TON OF ORE WITH AN ANALYSIS FIRST QUOTED ABOVE (66.32%WO3). THE WEIGHT OF THE BLOCK WAS ABOUT ONE AND A HALF TONS. THOSE IN CHARGE, AFTER BREAKING UP THE MASS, PROCEEDED TO SINK A SMALL SHAFT AND DRIFT BOTH WAYS INTO THE STEEP HILLSIDES ON BOTH SIDES OF THE BROOK NEAR WHICH THE BLOCK HAD BEEN FOUND. THEIR GENERAL CONCLUSION WAS THAT THEY WERE DEALING WITH A LENTICULAR MASS WHICH PINCHED OUT.

ON VISITING THIS PROSPECT IN MAY, 1908, THE WRITER CONCLUDED THAT THE ORE QUARTZ MASS HAD BEEN A LOOSE BLOCK WHICH HAD ROLLED FROM THE HILLSIDE TO THE SOUTH OF MURPHYS BROOK. THE ROCK IN WHICH THE WORK HAS BEEN DONE IS A REDDISH BIOTITE GRANITE, CONTAINING LITTLE ORTHOCLASSE AND MUCH PLAGIOCLASSE. THE BIOTITE IS MUCH DECOMPOSED. THIS GRANITE FORMS PART OF A BOSS WHICH IS OVERLAID BY OLD PALEOZOIC SLATES AND SHALES. JUST NEAR THE CONTACT THE SLATE IS ALTERED TO A HARD GREENISH LIME SILICATE. THE MICROSCOPE SHOWS THAT THE ROCK IS MADE UP ALMOST ENTIRELY OF SECONDARY GREEN ACICULAR HORNBLENDE, YELLOWISH EPIDOTE, AND SECONDARY QUARTZ. THIS FACT MEANS THAT THE GRANITE IS INTRUSIVE IN TO THE SLATES AND THAT IT HAS METAMORPHOSED IT TO THE GREEN TYPE ABOVE MENTIONED. THE MINE WHERE THE HUBNERITE BOULDER WAS FOUND, IS SITUATED NEAR THE BOUNDARY BETWEEN THE SLATE AND GRANITE, BUT ON THE GRANITE SIDE OF THE LINE. THE WOODED GRANITE HILL SLOPE, SOUTH OF THE BROOK, IS MARKED BY THE OCCURRENCE OF MANY LARGE QUARTZ MASSES, PROBABLY DERIVED FROM QUARTZ VEINS IN THE GRANITE, HIDDEN BY THE VEGETATION AND HUMUS.

AN AVERAGE ANALYSIS OF THE QUARTZ HUBNERITE FRAGMENTS COLLECTED WHEN THE PROSPECT WAS VISITED GAVE THE FOLLOWING ASSAYS:

WO3	9.74%
FEO	5.67%

SOME OF THE SAND AND GRAVEL FROM THE STREAM BED WAS WASHED, AND THE RESULTING CONCENTRATE ON ANALYSIS YIELDED WO3 0.47%."

HOFFMAN 1898:" IT WAS HERE FOUND ASSOCIATED WITH SMALL QUANTITIES OF CHALCOPYRITE AND A VERY LITTLE PALE YELLOW HYDROUS MICA, IRREGULARLY DISTRIBUTED THROUGH A MASS OF LIGHT GRAYISH WHITE, TRANSLUCENT QUARTZ, WEIGHING ABOUT A TON AND A HALF, FOUND LYING AT THE OUTCROP OF A LENTICULAR VEIN OF A SIMILAR QUARTZ, OF SOME TWO FEET AND A HALF TO THREE FEET IN WIDTH, CUTTING A GNEISSIC OR GRANITIC ROCK OF PRE CAMBRIAN AGE. THE DETACHED QUARTZ MASS AFFORDED, IT HAS BEEN VARIOUSLY ESTIMATED, FROM THREE HUNDRED TO FIVE HUNDRED POUNDS OF DRESSED MATERIAL. THE VEIN, HOWEVER CONTAINED BUT A COMPARITIVELY SMALL SCATTERING OF THE MINERAL, AND THAT ONLY FOR A COUPLE OF FEET IN.

IT OCCURS IN THE QUARTZ IN THE FORM OF NARROW SEAMS AND SMALL IRREGULAR MASSES HAVING A COARSELY LAMINATED STRUCTURE; HAS A BROWN-BLACK COLOUR, A SUBMETALLIC LUSTRE, BREAKS WITH A SMALL SUBCONCHOIDAL FRACTURE AND AFFORDS A BROWNISH-YELLOW STREAK."

MESSERVEY 1942(AR 25-J-15(00);

" ABOUT 1\2 MILE UP MURPHYS BROOK A 20 FOOT TUNNEL WAS FOUND IN THE NORTH BANK AND DIRECTLY OPPOSITE A 10 FOOT TUNNEL INTO THE SOUTH BANK. QUARTZ FLOAT WAS FOUND IN THE AREA AND AN EXAMINATION OF THE TUNNELS INDICATED THAT THEY HAD BEEN DRIVEN ON A QUARTZ VEIN (FISSURE). THE SURROUNDING COUNTRY ROCK IS IGNEOUS, REDDISH IN COLOR, AND COMPOSED MOSTLY OF QUARTZ AND RED FELDSPAR.

BLACK TO BROWNISH-BLACK SEGREGATIONS WERE OBSERVED IN THE QUARTZ VEIN. MINERALOGICAL AND QUALITATIVE CHEMICAL TESTS PROVED IT TO BE SPECULAR HEMATITE."

COOKE 1942:(AR 53-J-40(00))

" ABOUT HALF A MILE FROM THE ROAD A SORT OF GOPHER HOLE HAS BEEN DRIVEN SOME TEN FEET OR SO INTO THE GRANITE CLIFFS ON EACH SIDE OF THE BROOK, FOLLOWING SMALL QUARTZ VEINS. THESE WORKINGS ARE OLD. IN NEITHER WAS ANY SCHEELITE SEEN.

WE THEN ASCENDED THE VERY STEEP HILL FOR ABOUT 500 FEET ABOVE THE PIT ON THE SOUTHWEST SIDE, AT THE SAME TIME GOING PERHAPS 100 OR 150 FEET NORTHEAST. THE SURFACE OF THE HILL IS COVERED TO SOME CONSIDERABLE DEPTH BY LARGE BOULDERS: BUT THERE IS SOME SUGGESTION THAT THESE HAVE BEEN RIVED OFF FROM BEDROCK BY FROST ACTION, AND HAVE PROBABLY MOVED LITTLE SINCE THIS TOOK PLACE.

AT THE POINT MENTIONED, THE LARGE BOULDERS HAVE HAD MOSS STRIPPED AWAY, TO DISPLAY A QUARTZ VEIN THAT FOLLOWS DOWN THE SLOPE ABOUT 50 FEET. THE SUCCCESSIVE QUARTZ BOULDERS ARE IN LINE, ON A STRIKE OF 50 DEGREES, MAGNETIC. AT ITS UPPER END, THE QUARTZ VEIN IS ABOUT A FOOT WIDE: THE BOULDER CONTAINING IT DISPLAYS GRANITE ON BOTH SIDES: AND AND THE QUARTZ CARRIES 0.1% OR LESS OF SCHEELITE. AT THE LOWER END, THE VEIN, JUDGING FROM THE SIZE OF THE BOULDERS, MUST BE 3 TO 4 FEET WIDE, BUT THE SCHEELITE IS PRESENT IN VERY SMALL AMOUNT, NOT MORE THAN 0.001%. IN BOTH PLACES ALL THE SCHEELITE IS PRESENT AS VERY THIN WHITE FILMS FILLING JOINT CRACKS IN THE QUARTZ. NO GOOD CRYSTALS OF THE MINERAL WERE SEEN."

FRENCH MSC THESIS:" ON MURPHY BROOK A WHITISH GRAY, PYRITIFEROUS GREISEN ZONE IS CUT BY QUARTZ VEINS AND STRINGERS. THIS ZONE EXTENDS APPROXIMATELY 300- 400 METRES EAST FROM THE WESTERN CONTACT AND IS ALSO FAULT BOUNDED ON THE EAST BY A SUBVERTICAL FAULT ZONE TRENDING APPROXIMATELY EASTERLEY WHICH HAS JUXTAPOSED A BLOCK OF SCHISTOSE METABASITE AGAINST THE GILLADERS MOUNTAIN INTRUSIVE COMPLEX."

ONE HOLE WAS DRILLED ON THE OCCURRENCE BY CAPE BRETON MINERALS IN 1955 (AR CLOSURE 1(04). NO MINERALIZATION WAS REPORTED IN THE HOLE. ALL WORK ON THE OCCURRENCE SINCE 1955 HAS CONSISTED OF PROSPECTING, MAPPING AND STREAM GEOCHEMISTRY.

FIELD DESCRIPTION :

THE OLD DUMP IS LOCATED 880 METRES FROM THE BRIDGE, ON THE WEST BANK OF THE BROOK. IT IS DIFFICULT TO NOTICE AS IT IS OVERGROWN. THE SAMPLES ON THE DUMP CONSIST OF WHITE TO SEMI-TRANSLUCENT QUARTZ WITH MINOR AMOUNTS OF CHALCOPYRITE AND PYRITE. (SAMPLE K06-08(01)) AN OLD TRENCH AND SHORT ADIT ARE LOCATED ON THE EAST BANK, OPPOSITE THE DUMP. THE ADIT IS ALMOST CAVED IN. SAMPLE K06-08(02) IS TAKEN FROM THE

MOUTH OF THE ADIT. THE ADIT IS DRIVEN IN A RED GRANITIC ROCK. THE ADIT OPENING HAS BEEN REDUCED TO APPROXIMATELY 1M BY 0.5 METRES. THE ADIT IS LOCATED APPROXIMATELY 20M SOUTH OF THE TRENCHED AREA.

SAMPLE
K06-08(01) GRAB SAMPLE OF QUARTZ VEIN FROM THE DUMP

K06-08(02) GRAB SAMPLE OF RED GRANITIC ROCK FROM THE OLD ADIT , NO MINERALIZATION IS VISIBLE IN THE SAMPLE

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\06 MARGAREE, 1:50,000

BIBLIOGRAPHY :

WALKER, T.L., REPORT ON THE TUNGSTEN ORES OF CANADA, GSC MINES BRANCH REPORT NO.25, P.22-24. 1909 (MRW 073)

LITTLE, H.W.; TUNGSTEN DEPOSITS OF CANADA, ECON GEOL. SER. NO 17, P.201, 1909 (MRL 060)

HOFFMAN, G.C.; REPORT ON THE SECTION OF CHEMISTRY AND MINERALOGY, GSC ANNUAL REPORT, VOL 11, PART R. P.10, 1898

NSDME AR 11K\10B CLOSURE 1 (04) BASE METALS, CHETICAMP AREA

NSDME AR 11K\03D 51-J-90(01) TIN, MOUNT PLEASANT KIDD CREEK 1983

NSDME AR 11K\06A 53-J-40(00) TUNGSTEN, MARGAREE FORKS

NSDME AR 11K\06A 25-J-15(00) IRON, EMERALD

MACNABB, B.E., J.H. FOWLER AND T.G.N. COVERT : GEOLOGY, GEOCHEMISTRY AND MINERAL OCCURRENCES OF THE NORTHEAST MARGAREE RIVER DRAINAGE BASIN, NSDME PAPER 76-4, 1976, P12-15

NSDME AR 11K\06A 35-J-40(01) MOLYBDENUM, MARGAREE FORKS

FRENCH, V.A, GEOLOGY OF THE GILLANDERS MOUNTAIN INTRUSIVE COMPLEX AND SATELLITE PLUTONS, LAKE AINSLIE AREA, CAPE BRETON ISLAND, NOVA SCOTIA, MSC THESIS, ACADIA UNIV., 1985

REMARKS :

AN AIRBORNE RADIOMETRIC SURVEY INDICATED ANOMALOUS READINGS FOR U AND TH OVER THE GILLANDERS MOUNTAIN INTRUSIVE COMPLEX. (AR 51-J-90(01)) STREAM GEOCHEMICAL ANOMALIES FOR TIN WERE FOUND IN PINE BROOK TO THE EAST OF MURPHY BROOK.

THE GEOLOGY OF THIS AREA HAS BEEN CHANGED BY MAPPING COMPLETED BY V.A. FRENCH. IN HIS RECENT MAPPING HE NOTES THAT THE OCCURRENCE IS LOCATED AT THE FAULTED CONTACT BETWEEN A METABASITE AND THE GILLANDERS MOUNTAIN INTRUSIVE SUITE.

THIS PRESENTS A MORE INTERESTING EXPLORATION TARGET AS THE MINERALIZED QUARTZ VEIN PROBABLY FOLLOWS THE FAULT. THIS WOULD ACCOUNT FOR THE LACK OF QUARTZ VEINING IN OTHER AREAS AS NOTED BY KIDD CREEK. THE QUARTZ VEIN IS PROBABLY STRUCTURALLY CONTROLLED SO THERE MAY NOT BE QUARTZ VEINING IN OTHER AREAS.

THE ANOMALOUS AU-W-AG VALUES RECORDED FROM THIS OCCURRENCE MAKE IT INTERESTING. THERE HAS BEEN VERY LITTLE DETAILED WORK ON THIS OCCURRENCE. A DETAILED MAPPING AND VLF SURVEY COULD DEFINE THE FAULT WITH LITTLE EFFORT.

VERIFICATION :

THE MINERAL OCCURRENCE WAS VERIFIED IN THE FIELD BY NSDME STAFF.

ASSAY DATA

HOFFMAN 1898:

TUNGSTEN TRIOXIDE	74.28
MOLYBDENUM TRIOXIDE	TRACE
MANGANOUS OXIDE	22.73
FERROUS OXIDE	0.47
LIME	0.02
MAGNESIA	0.86
SILICA	1.33

WALKER 1909:

TUNGSTIC ACID	66.32
SILICA	6.25
MANGANESE	12.02
IRON	0.12
WO3	74.28
MOO3	TRACE
MNO	22.73
FEO3	0.47
CAO	0.02
MGO	0.86
SIO2	1.33

AR 11K\03D 51-J-90(01)

SAMPLE ELEMENT	1	2	3	4
LI	9	8		
BE	<10	<10		
B	50	75		
F	250	170		
MO	2.0	3.5	4	3
CO	<0.5	<0.5		
NI	4.0	2.0		
CU	470	210	1850	1300
ZN	6.0	22.0	58	3
AG	33.0	34.0	8.2	32
SN	<3	<3	2.1	1.5
SB	0.3	6.8		
W	15	440	10200	24
PB	14	140	20	30
BI	25.0	16.0		
U	3.0	0.6		
TH	<1	2		

AU (OZ\TON)	.018	.026

NSDME 1990
BONDAR CLEGG AU+33

SAMPLE NUMBER		K06-08(01)	K06-08(02)
ELEMENT	UNITS		
NA	PCT	<0.05	2.30
SC	PPM	<0.5	5.7
CR	PPM	460	260
FE	PCT	<0.5	2.5
CO	PPM	<10	<10
NI	PPM	<20	<20
ZN	PPM	<200	<200
AS	PPM	<1	16
SE	PPM	<10	<10
BR	PPM	2	2
RB	PPM	14	200
ZR	PPM	500	<500
MO	PPM	11	<2
AG	PPM	19	<5
CD	PPM	<10	<10
SN	PPM	<200	<200
SB	PPM	2.0	0.4
TE	PPM	<20	<20
CS	PPM	<1	4
BA	PPM	<100	620
LA	PPM	<5	45
CE	PPM	<10	120
SM	PPM	0.2	10.0
EU	PPM	<2	<2
TB	PPM	<1	2
YB	PPM	<5	<5
LU	PPM	0.7	<0.5
HF	PPM	<2	3
TA	PPM	<1	1
W	PPM	2310	<100
IR	PPB	<100	<100
AU	PPB	300	<5
TH	PPM	<0.5	15.0
U	PPM	<0.5	6.3
WT	g	15.43	13.57

SURVEYS PERFORMED

GEOLOGY, STREAM GEOCHEMICAL, DRILLING, TWO SHORT ADITS DRIVEN(1880'S), AIRBORNE RADIOMETRICS

COMPILED BY :GARTH DEMONT, APRIL, 1989
UPDATED BY :GARTH DEMONT, DEC, 1990
FIELD CHECKED BY :G.DEMONT AND C. WILLIAMS, AUGUST,1990

GEOLOGY BY V.A. FRENCH

[illegible] CARBONIFEROUS OR YOUNGER

/	Mafic dyke rocks

CARBONIFEROUS

▨	**WINDSOR GROUP:** red siltstone; sandstone; shale; mudstone; conglomerate; minor gypsum
HG	**HORTON GROUP:** red and gray sandstone; red siltstone; shale; conglomerate; limestone

EARLY CARBONIFEROUS (VISEAN)

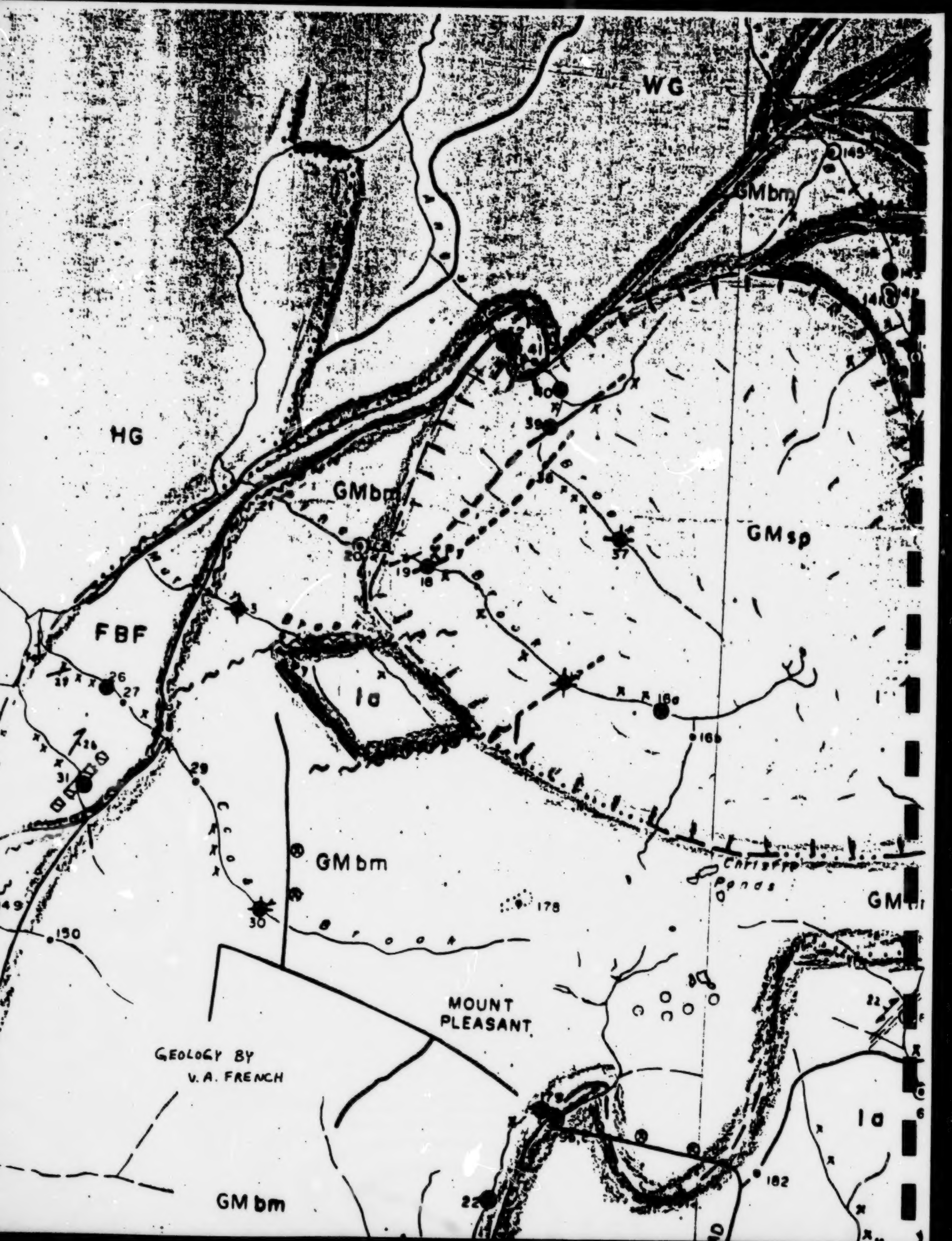
▨	**LISSET BROOK FORMATION:** basalt, rhyolite; mafic and felsic tuff; conglomerate; siltstone; sandstone and limey sandstone with plant remains; minor agglomerate and andesitic lapilli tuff
GMs GMsp	**GILLANDERS MOUNTAIN** intrusive complex red, equigranular to strongly granophyric, porphyritic syenogranites:- (GMs) medium grained, equigranular, slightly granophyric syenogranite; minor pegmatite and aplite; contains exotic blocks of GMd and sub-unit 1c; (GMsp) miarolitic, porphyritic, strongly granophyric syenogranite; also includes felsic dyke rocks

SILURIAN AND (?) DEVONIAN

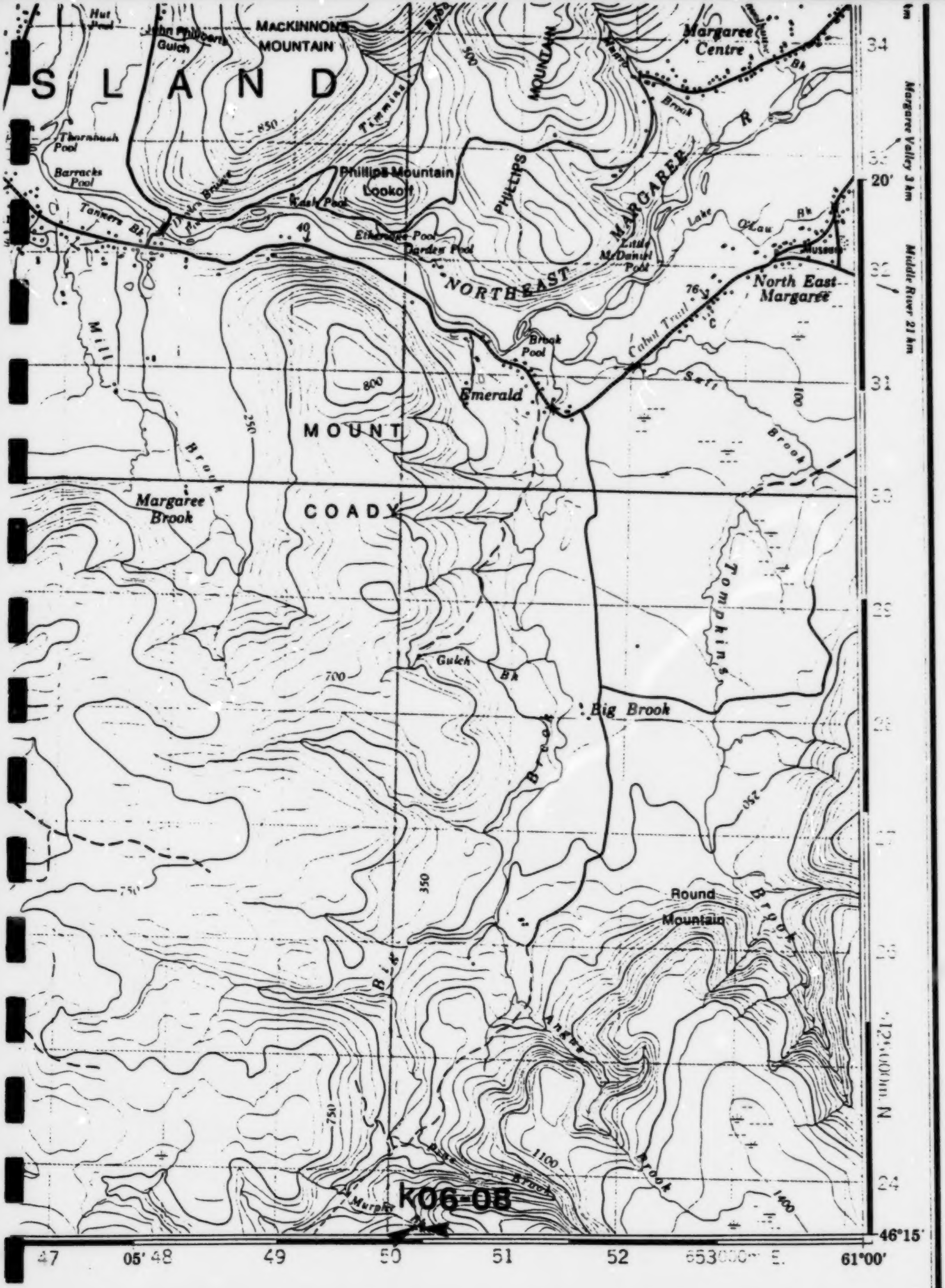
GMbm PGbm	**GILLANDERS MOUNTAIN** intrusive complex (GMbm) and **PIPERS GLEN** pluton (PGbm) biotite monzogranite; also includes **SCOTSVILLE INLIER** pluton monzogranite and felsic dyke rocks
WHYgp	**WHYCOCOMAGH MOUNTAIN** pluton granite porphyry
LAgd SLAgd WHYgd	**LAKE AINSLIE** pluton (LAgd), **SOUTH LAKE AINSLIE** pluton (SLAgd) and **WHYCOCOMAGH MOUNTAIN** pluton (WHYgd) granodiorite

HADRYNIAN OR YOUNGER

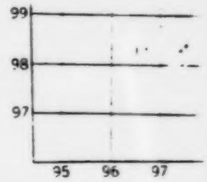
GMd LAd SEd WHYd	**GILLANDERS MOUNTAIN** intrusive complex unfoliated to foliated dioritic rocks, includes exotic blocks of **GILLANDERS MOUNTAIN** metamorphic unit and metamorphosed, mafic dyke rocks (GMd); **LAKE AINSLIE** pluton diorite (LAd); **SOUTHEAST** pluton diorite (SEd); **WHYCOCOMAGH MOUNTAIN** pluton dioritic rocks and undifferentiated granodiorite (WHYd); also includes **SCOTSVILLE INLIER** diorite
▨	**GILLANDERS MOUNTAIN** metamorphic unit: (1a) psammitic to politic schist; metabasite; minor quartzo-feldspathic augen gneiss; (1b) semipelitic schist; quartzo-feldspathic gneiss; impure quartzite; amphibolite; mafic and felsic metavolcanic rocks; (1c) massive to foliated amphibolite; garnetiferous, semipelitic schist; minor graphitic schist


WG
GMbm
145
141
HG
41
40
39
38
GMbm
GMsp
37
20
19
18
FBF
3
26
27
Ia
16a
16b
31
29
GMbm
30
178
Ponds
GM
150
MOUNT PLEASANT
Ia
182
22
GMbm

GEOLOGY BY V. A. FRENCH


Hut Pool
John Philpott Gulch
MacKINNONS MOUNTAIN
S L A N D
Timmins Bk
500
MOUNTAIN
Margaree Centre
850
Thornbush Pool
Barracks Pool
Philips Mountain Lookout
PHILLIPS
MARGAREE
R
Brook
Tanners Bk
Cash Pool
40
Etheridge Pool
Dardes Pool
NORTHEAST
Little McDaniel Pool
Lake O'Law Bk
Museum
North East Margaree
76
Cabot Trail
Brook Pool
Mill
800
Emerald
Salt Brook
100
MOUNT
COADY
350
Brook
Margaree Brook
Tompkins
Gulch Bk
700
Big Brook
Brook
250
750
Round Mountain
Brook
350
Bk
Angus
750
1100
Brook
Murphy Bk
Pine Brook
1400
K06-08
34
33
32
31
30
29
28
27
26
25
24
20'
Margaree Valley 3 km
Middle River 21 km
12 000m N.
46°15'
47
05' 48
49
50
51
52
653000m E.
61°00'

EXAMPLE OF METHOD USE
TO GIVE A REFERENCE TO NEAREST
EXEMPLE DE LA METHODE EMP
POUR FIXER DES REPERES A 100 M


99
98
97
95
96
97

REFERENCE POINT
POINT DE REPERE
CHURCH - EG

EASTING Read number on grid line immediately to left of point

ABSCISSE: Noter le chiffre de la ligne du quadrillage immediatement a gau du repere

Estimate tenths of a square from this line eastward to point

Estimer le nombre de dixiemes du car entre cette ligne et le repere en direct

NORTHING Read number on grid line immediately below point

ORDONNEE Noter le chiffre de la ligne du quadrillage immediatement en-des du repere

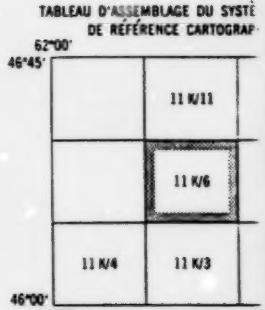
Estimate tenths of a square from this line northward to point

Estimer le nombre de dixiemes du car entre cette ligne et le repere en direct

GRID REFERENCE
REFERENCE AU QUADRILLAGE

Nearest similar reference 100 [illegible]
La plus proche reference similaire est a 100 [illegible]

TABLEAU D'ASSEMBLAGE DU SYSTE
DE RÉFÉRENCE CARTOGRAP


62°00'
46°45'
11 K/11
11 K/6
11 K/4
11 K/3
46°00'
62°00'

INDEX TO ADJOINING MAP
THE NATIONAL TOPOGRAPHIC

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE.
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES.
Mise à jour à l'aide de photographies aériennes prises en 1978. Vérification des ouvrages en 1979. Publiée en 1981.

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Ministère de l'Énergie, des Mines et des Ressources.

MARGARE
11 K/6
EDITION 3

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER :** K07-01

OCCURRENCE NAME : PRICE POINT

LOCATION

COUNTY : VICTORIA **CLAIM MAP :** 11K\07A **TRACT :** 28 **CLAIM :** B

NORTHING : 5127800 **EASTING :** 687180 **ZONE :** 20

DESCRIPTIVE LOCATION : DRIVE TO THE END OF THE PRICE POINT ROAD. THE LAST PORTION OF THE ROAD IS ON PRIVATE PROPERTY AND PERMISSION MUST BE OBTAINED TO CROSS. FROM THE BEACH TO THE WEST OF THE BOATHOUSES, TRAVEL APPROXIMATELY 800 METRES ALONG THE SHORE TO THE ADIT. TWO MORE MINERALIZED VEINS WERE NOTED, ONE 10M EAST OF THE ADIT AND ANOTHER 25M EAST OF THE ADIT. TWO OTHER LOCATIONS OF MINERALIZED VEINS ARE NOTED IN THE ASSESSMENT FILES. A AU-CU OCCURRENCE IS NOTED TO THE WEST OF THE ADIT IN AR CLOSURE 1 (04) AND A CU ZN VEIN IS NOTED TO THE EAST OF THE ADIT IN AR 84-067.(NOTE THE COORDINATES GIVEN ARE FOR THE ADIT LOCATION.)

SUMMARY DESCRIPTION

MINERALIZATION : SPHALERITE, TETRAHEDRITE, GALENA, CHALCOPYRITE, STIBNITE? AND HEMATITE **COMMODITY :** ZN, PB, CU, SB AND FE

STRATIGRAPHIC UNIT : PRICE POINT FORMATION **AGE :** HADRYNIAN

HOST ROCK : DACITE OR ANDESITE

STATUS : THE MINERALIZATION IS REPORTED IN OUTCROP AND A SHORT ADIT DRIVEN IN THE LATE 1800'S.

GEOLOGICAL ENVIRONMENT :

BARR ET AL (1985); " SULPHIDE SHOWINGS IN THE ST. ANNS AREA INCLUDE POLYMETALLIC QUARTZ-CALCITE VEINS AND BARREN PYRITIC OCCURRENCES IN BOTH GRANITOID ROCKS AND OLDER VOLCANIC ROCKS. THE VOLCANIC ROCKS CONSIST OF INTERMEDIATE LITHIC-CRYSTAL TUFFS AND FLOWS OF CALC-ALKALIC AFFINITY WHICH ARE PROBABLY LATE HADRYNIAN IN AGE AS THEY HAVE BEEN INTRUDED BY A LATE HADRYNIAN-CAMBRIAN GRANITOID SUITE INCLUDING GRANITE, GRANODIORITE, LEUCOGRANITE, AND QUARTZ MONZODIORITE. CU-MO-AU BEARING VEINS ARE HOSTED MAINLY BY THE GRANITOID ROCKS AND RARER CU-ZN-PB-AG VEINS BY THE VOLCANIC ROCKS, BUT BOTH VEIN TYPES EXHIBIT SIMILAR ORIENTATIONS AND MORPHOLOGICAL AND TEXTURAL FEATURES SUGGESTING A COMMON ORIGIN.

PRICE POINT VOLCANIC ROCKS.

VOLCANIC ROCKS , HERIN REFERRED TO AS THE PRICE POINT UNIT, FLANK AND TRANSECT THE GRANITOID ROCKS OF MURRAY MOUNTAIN. ALTHOUGH MOST CONTACTS ARE FAULTS , INTRUSIVE CONTACTS ARE EXPOSED LOCALLY WITH THE INDIAN BROOK GRANODIORITE NEAR WHERE THE CABOT TRAIL CROSSES THE BARACHOIS RIVER AND WITH THE ST ANNS LEUCOGRANITE NEAR PRICE POINT. A VARIETY OF GRANITOID DYKES ALSO IN THE VOLCANIC ROCKS.

THE VOLCANIC ROCKS ARE ESSENTIALLY INTERMEDIATE IN BULK COMPOSITION AND CONSIST MAINLY OF CRYSTAL AND LITHIC-CRYSTAL TUFFS TOGEATHER WITH LESS ABUNDANT ANDESITIC-DACITIC FLOWS. THE ONLY MAFIC ROCKS PRESENT APPEAR TO BE DYKES, OF UNCERTAIN AGE BUT PERHAPS RELATED TO THE VOLCANIC PACKAGE. NO SEDIMANTARY ROCKS WERE OBSERVED IN THE SEQUENCE.

ALL OF THE VOLCANIC ROCKS ARE MODERATELY ALTERED AND GENERALLY CONSIST OF SAUSSURITIZED FELDSPAR, QUARTZ, CHLORITE, EPIDOTE, ACTINOLITE, CALCITE, SERICITE,AND OPAQUE MINERALS. ALTHOUGH SOME LOCALLY ARE CUT BY QUARTZ- CALCITE VEINS AND MINERALIZED WITH SULPHIDES, THE PERVASIVE ALTERATION IS CONSIDERED TO BE OF LOW-GRADE METAMORPHIC ORIGIN. HOWEVER, NO SYSTEMATIC FOLIATION WAS RECOGNIZABLE IN THESE ROCKS."

THE EXCERPTS ABOVE ARE TAKEN FROM A REPORT BY A.S. MACDONALD AND S.M. BARR. (GSC PAPER 85-1B)

REFERENCE DESCRIPTION :

FLETCHER 1884 ;" ON THIS ROAD, AND ON THAT ALONG THE SHORE, DIORITE AND FELSITE ACCOMPANY SYENITE, AND NEAR THE BASE OF THE ENGLISHTOWN SAND BAR PORPHYRITIC FELSITE FORMS THE HILL. ON THE SHORE

OPPOSITE ENGLISHTOWN A SIMILAR PORPHRY CONTAINS METALLIFEROUS VEINS OF CALCSPAR AND QUARTZ, BUT IS SUCCEDDED FURTHER SOUTH BY BRIGHT RED SYENITE, ALSO VEINED BY DIORITE AND QUARTZ, AND QUARTZ, WHICH EXTENDS TO THE MOUTH OF NORTH RIVER.

ON THE SHORE OF ST ANNS HARBOUR, INSIDE THE BEACH, AND OPPOSITE ENGLISHTOWN, THE CLIFFS OF DARK PURPLE PORPHYRITIC AND EPIDOTITIC FELSITE CONTAIN IRREGULAR LENTICULAR VEINS OF CALCSPAR AND QUARTZ, SELDOM EXCEEDING THREE INCHES. THESE HOLD COPPER PYRITES, GALENA, HEMATITE,ETC. AND HAVE BEEN TO SOME EXTENT TESTED BY LIEUT-COL BINGHAM, JUDGE TREMAINE, AND OTHERS, WHOSE ENTERPRISE DESERVES TO BE SUCCESSFULL."

FIELD DESCRIPTION :

JULY 1990 ;

AN ADIT WAS LOCATED AT BEACH LEVEL. THE ADIT IS APPROXIMATELY 1.5M BY 1.5M AND 8 METRES DEEP. THE ADIT IS STILL OPEN AND CAN BE ENTERED. NO VEIN WAS VISIBLE IN THE ADIT BUT A VEIN CAN BE SEEN IN A FRACTURED ZONE ABOVE THE ADIT MOUTH. MINOR CHALCOPYRITE WAS NOTED IN THIS QUARTZ VEIN.

TWO OTHER MINERALIZED QUARTZ VEINS WERE NOTED IN THE CLIFF EAST OF THE ADIT. ONE IS LOCATED 10M EAST OF THE ADIT AND THE OTHER 25M EAST.

THE PHOTOGRAPHS IN THE JOURNAL SHOW THESE VEINS.THE ADIT IS DRIVEN IN INTERMEDIATE ANDESITIC VOLCANIC ROCKS.

SAMPLES

K07-01 (01): GRAB SAMPLE OF THE VEIN FROM THE MOUTH OF THE ADIT.MINOR CHALCOPYRITE MINERALIZATION WAS NOTED IN THE HAND SAMPLES.

K07-01 (02) : GRAB SAMPLE OF THE VEIN LOCATED 25 METRES EAST OF THE ADIT. CHALCOPYRITE, MALACHITE AND AND AN UNIDENTIFIED GREY MINERAL WERE NOTED IN THE VEIN. (PROBABLY STIBNITE)

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\07 ST ANNS, 1;50,000

GSC MAP 12 GEOLOGY, FLETCHER, ONE INCH TO ONE MILE, 1884

GSC OF 1594 GEOLOGY, S.M. BARR, R.P.RAESIDE AND R.A. JAMIESON, 1:50,000, 1987

BIBLIOGRAPHY :

NSDME AR 11K\10B CLOSURE 1 (04)BASE METALS, CHETICAMP AREA

FLETCHER, H.: GSC ANNUAL REPORT 1882-84, PART H, P14,94

HOFFMAN,C.G.: GSC ANNUAL REPORT 1882-84, PART MM, P3

NSDME AR 84-067 GOLD, MUSKRAT BROOK

NSDME AR 11K\07A 13-Q-36(02) COPPER, PRICE POINT

MACDONALD,A.S. AND S.M. BARR, GEOLOGY AND AGE OF POLYMETALLIC MINERAL OCCURRENCES IN VOLCANIC AND GRANITOID ROCKS ST ANNS AREA, CAPE BRETON ISLAND, GSC REPORT 85-1B, P117-124

REMARKS :

TWO OTHER MINERALIZED VEINS WERE NOTED IN THE ASSESSMENT FILES. A CU-ZN OCCURRENCE WAS NOTED EAST OF THE ADIT IN AR 84-067. A AU-CU VEIN WAS NOTED WEST OF THE ADIT IN AR 11K\10B CLOSURE 1(04). LITTLE INFORMATION IS PROVIDED ON THESE VEINS OTHER THAN A LOCATION. THERE ARE SEVERAL VEINS LOCATED ALONG THE SHORE NEAR THE ADIT. UNFORTUNATELY WE WERE CAUGHT BY A RISING TIDE THE DAY OF THE FIELD CHECK SO ALL THE VEINS WERE NOT SAMPLED. AN ASSAY OF THE VEIN FROM AR 84-067 IS LISTED IN THE ASSAY SECTION OF THIS REPORT. THE COORDINATES GIVEN IN THIS REPORT ARE THOSE OF THE ADIT.

VERIFICATION :

THE MINERALIZATON IS WELL DESCRIBED IN THE LITERATURE AND CONFIRMED BY AN NSDME FIELD CHECK IN 1990.

ASSAY DATA

HOFFMAN (1884)

" FROM THE "ST ANNS MOUNTAIN MINE ", OPPOSITE ENGLISHTOWN, CAPE BRETON. EXAMINED FOR LIEUT COL W.BINGHAM.

IT CONSISTED OF A MIXTURE OF ZINC-BLENDE, TETRAHEDRITE, GALENA, AND COPPER PYRITES, IN A GANGUE OF GREYISH QUARTZ, ASSOCIATED WITH A LITTLE FINELY DISSEMINATED CALCITE. IT WAS FOUND, BY MR F.D. ADAMS TO CONTAIN

GOLD TRACE
SILVER 6.017 OZ\TON"

AR 84-067 CALCITE AND PYRITE VEIN IN A CRYSTAL LITHIC TUFF (BILLITON 1983)

SAMPLE 920-83-04-186 CU 12400 PPM, PB 113 PPM , ZN 1145 PPM, AG 82 PPM, AU 45 PPB

NSDME 1990 (NOTE SAMPLE K07-01(02) WAS HIGH IN SB , THIS HAS AFFECTED THE OTHER PEAKS)
BONDAR-CLEGG AU+33

SAMPLE NUMBER		K07-01(01)	K07-01(02)
ELEMENT	UNITS		
NA	PCT	1.10	<1.50
SC	PPM	13.0	<2.9
CR	PPM	180	<1000
FE	PCT	3.8	<2.1
CO	PPM	15	<37
NI	PPM	<20	<220
ZN	PPM	<200	<1500
AS	PPM	15	1840
SE	PPM	<10	<180
BR	PPM	6	<163
RB	PPM	63	<150
ZR	PPM	<500	<5300
MO	PPM	<2	<36
AG	PPM	<5	220
CD	PPM	<10	<150
SN	PPM	<200	<5600
SB	PPM	42.4	8010.0
TE	PPM	<20	<580
CS	PPM	2	<7
BA	PPM	<100	<1500
LA	PPM	13	<15
CE	PPM	30	<300
SM	PPM	3.3	<1.6
EU	PPM	<2	<23
TB	PPM	<1	<3
YB	PPM	<5	<210
LU	PPM	<0.5	<5.6
HF	PPM	<2	<27
TA	PPM	<1	<4
W	PPM	6	<24
IR	PPM	<100	<1100
AU	PPB	<5	<170
TH	PPM	4.7	<12.0
U	PPM	0.9	<8.1
WT	g	13.39	11.26

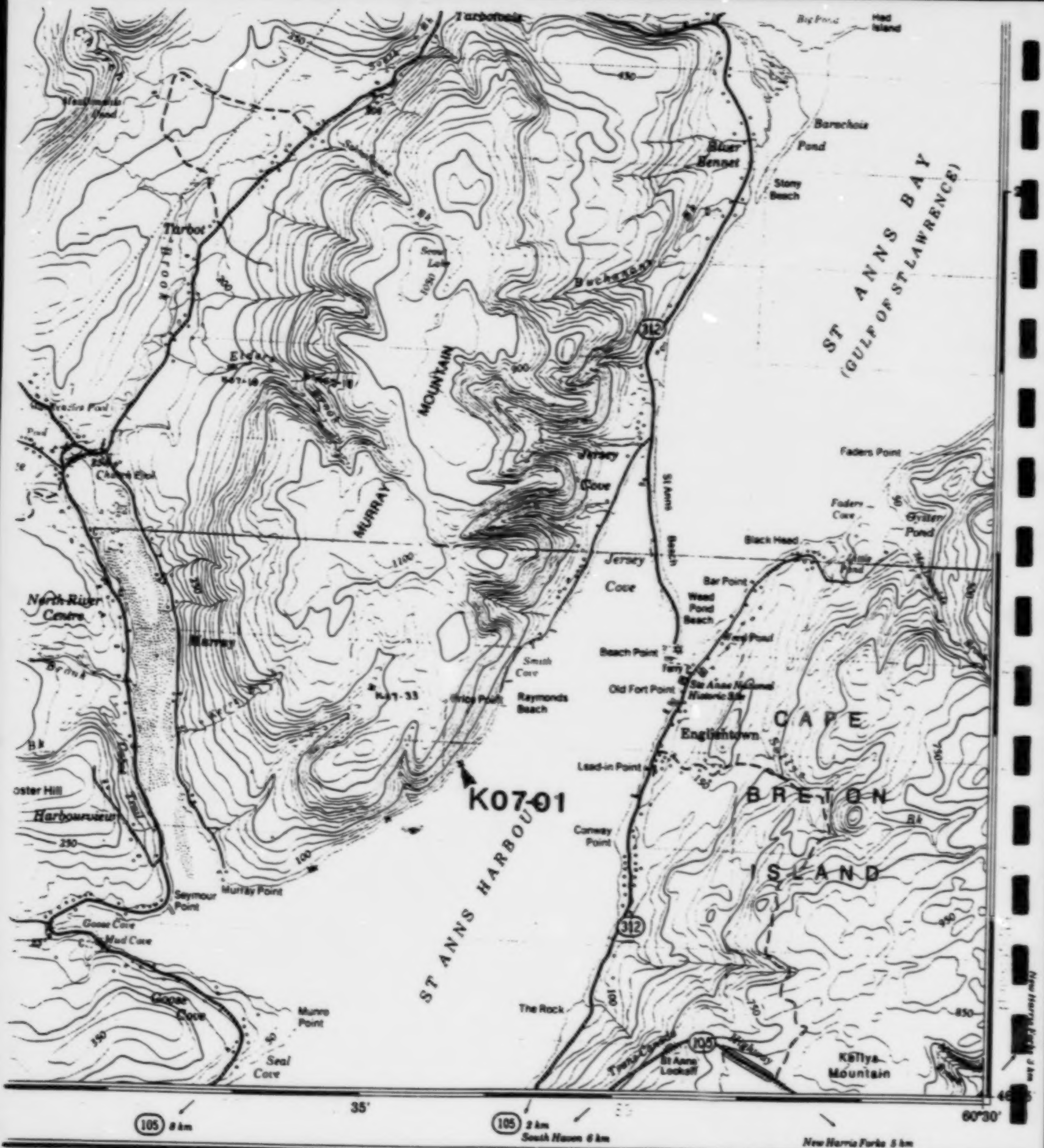
BONDAR-CLEGG ATOMIC ABSORPTION

SAMPLE NUMBER		K07-01(01)	K07-01(02)
ELEMENT	UNITS		
CU	PPM	134	>20000

SURVEYS PERFORMED

GEOLOGY, 20 FOOT ADIT(1800'S), REGIONAL STREAM SEDIMENT GEOCHEMICAL, LITHOGEOCHEMICAL

COMPILED BY :GARTH DEMONT, APRIL, 1989
UPDATED BY :GARTH DEMONT, NOV.,1990
FIELD CHECKED BY :G.DEMONT AND C.WILLIAMS, JULY,1990


Tarbotvale
Big Pond
Hed Island
450
Barachois Pond
Bluer Bennet
Stony Beach
Tarbot
Brook
Buchanan
ST ANNS BAY
(GULF OF ST LAWRENCE)
312
Elders
MOUNTAIN
MURRAY
Jersey Cove
Faders Point
Faders Cove
Oyster Pond
Black Head
Jersey Cove
Bar Point
Wood Pond Beach
North River Centre
Murray
1100
Smith Cove
Beach Point
Old Fort Point
St Anns National Historic Site
Raymonds Beach
Englishtown
CAPE
Lead-in Point
K07-01
BRETON
Foster Hill
Harbourview
Conway Point
ISLAND
ST ANNS HARBOUR
Seymour Point
Murray Point
312
Goose Cove
Mud Cove
Goose Cove
Munro Point
Seal Cove
The Rock
Trans-Canada Highway
105
St Anns Lookoff
Kellys Mountain
35'
60°30'
105 8 km
105 2 km
South Haven 6 km
New Harris Forks 5 km

ru et l'altitude exacte des
géodésiques. Direction des

ES ALTITUDES

0 300 Mètres

900 1000 Pieds

0 PIEDS

méricaine, 1927
cator

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOG
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSO
Mise à jour à l'aide de photographies aériennes prises en 1978. Vérificat
des ouvrages en 1979. Publiée en 1981.

Ces cartes sont en vente au Bureau des Cartes du Canada,
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Ministère de l'Énergie, des Mines et des Ressources.

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER :**K07-03

OCCURRENCE NAME : BARACHOIS RIVER MOUTH

LOCATION

COUNTY : VICTORIA **CLAIM MAP :**11K\07A **TRACT :** 94 **CLAIM :** A

NORTHING : 5135470 AND 5135460 **EASTING :** 689020 AND 689100
ZONE : 20

DESCRIPTIVE LOCATION : THE ONLY QUARTZ VEIN NOTED ALONG THE LOWER PORTION OF THE BARACHOIS RIVER WAS FOUND AT A DISTANCE OF 180 METRES ABOVE THE IRON BRIDGE. THE IRON BRIDGE IS NO LONGER IN USE BUT THE STRUCTURE STILL STANDS. THE IRON BRIDGE IS LOCATED JUST ABOVE THE NEW BRIDGE WHICH IS LOCATED WHERE THE CABOT TRAIL CROSSES THE BARACHOIS RIVER.(NOTE THIS DESCRIPTION IS FOR THE VEIN SAMPLED IN THE 1990 FIELD CHECK. IT IS NOT CLEAR IF THIS IS THE VEIN DESCRIBED BY DOUGLAS, AS NO VEIN COULD BE LOCATED IN THE LOCATION DESCRIBED IN DOUGLAS'S REPORT.) THE FIRST SET OF COORDINATES GIVEN ABOVE IS THAT OF THE LOCATION GIVEN BY DOUGLAS. THE SECOND SET OF COORDINATES IS FOR THE VEIN LOCATED IN THE FIELD CHECK.

SUMMARY DESCRIPTION

MINERALIZATION : CHALCOPYRITE, PYRITE, BORNITE, CHALCOCITE AND MALACHITE **COMMODITY :** CU AND FE

STRATIGRAPHIC UNIT : INDIAN BROOK GRANODIORITE **AGE :** CAMBRIAN

HOST ROCK : GRANODIORITE

STATUS : THE MINERALIZATION WAS REPORTED IN OUTCROP (DOUGLAS 1937).

GEOLOGICAL ENVIRONMENT :

BARR ET AL (GSC PAPER 85-1B) DESCRIBE THE OCCURRENCE AS BEING FOUND IN THE INDIAN BROOK GRANODIORITE WHICH IS PART OF THE ST.ANNS HARBOUR WRECK COVE SUITE. THEY DESCRIBE THE SUITE AS :" THE EASTERN PART OF THE MAP AREA IS DIVIDED INTO BIRCH PLAIN GRANITE, INDIAN BROOK GRANODIORITE, ST ANNS LEUCOGRANITE, AND MURRAY MOUNTAIN QUARTZ MONZODIORITE. THE INTRUSIVE SEQUENCE IS BASED PRIMARLIY ON OBSERVATIONS OF GRANITOID XENOLITHIC MATERIAL. THE LATE HADRYNIAN TO EARLY CAMBRIAN AGE IS BASED ON ON RB-SR WHOLE ROCK ISOCHRON OF 517 +- 20 MA FOR THE ST ANNS LEUCOGRANITE REPORTED BY CORMIER (1979). THE ISOCHRON ALSO INCLUDED ONE SAMPLE OF INDIAN BROOK GRANODIORITE, WHICH IS PRESUMABLY SIMILAR IN AGE BUT SOMEWHAT OLDER. NEAR ITS WESTERN MARGIN THE INDIAN BROOK BROOK GRANODIORITE CONTAINS ABUNDANT XENOLITHS OF THE ADJACENT BARACHOIS RIVER GNEISS, AN INDICATION OF A LATE HADRYNIAN OR OLDER AGE FOR THE LATTER UNIT. WITHIN THE LARGE MAP UNITS OF THE ST ANNS HABBOUR WRECK COVE BELT, SOME VARIATION IN PETROLOGIC FEATURES IS APPARENT, AND MORE DETAILED STUDIES OF SAMPLES MAY RESULT IN FURTHER SUBDIVISION OF THE UNITS."

BARR ET AL (GSC PAPER 85-1B) "(INDIAN BROOK GRANODIORITE) THIS UNIT IS COMPOSED OF BIOTITE HORNBLENDE GRANODIORITE WHICH IS GRADATIONAL TO GRANITE. TOWARDS ITS WESTERN MARGIN, WHERE IT HAS INTRUDED A BELT OF GNEISSIC ROCKS, IT CONTAINS INCREASINGLY ABUNDANT STRONGLY ALIGHNED XENOLITHS OF THE GNEISSES."

REFERENCE DESCRIPTION :

DOUGLAS 1937;" THIS VEIN OUTCROPS ON THE NORTH BANK OF THE BARASOIS RIVER, 1,000 FEET ABOVE THE IRON BRIDGE. IT IS A ONE FOOT QUARTZ VEIN WITH SMALL STRINGERS 1\4" TO 1" IN WIDTH RAMIFYING FROM THE MAIN VEIN. IT CONSISTS OF QUARTZ WITH A SMALL AMOUNT OF CARBONATE AND SOME CHALCOPYRITE, PYRITE, BORNITE, CHALCOCITE AND MALACHITE. IT STRIKES 191 MAGNETIC AND DIPS WEST AT 70. THIS VEIN MAY ALSO BE SEEN ON CLIFFS ON THE SOUTH SIDE OF THE RIVER : HERE THE STRINGERS EXTEND OVER A WIDTH OF THREE FEET ALTHOUGH THE MAIN VEIN IS BUT 4 INCHES WIDE AT THIS POINT. A SAMPLE ANALYZED SHOWED 0.04 OZ OF GOLD PER TON."

FIELD DESCRIPTION :

NSDME 1990

A TRAVERSE WAS MADE FOR 500 METRES UP THE BARACHOIS RIVER FROM THE IRON BRIDGE. ONLY ONE VEIN SYSTEM WAS NOTED ALONG THIS STRETCH OF THE RIVER. THIS VEIN WAS LOCATED AT A DISTANCE OF 180 METRES ABOVE THE IRON BRIDGE.

A WHITE QUARTZ VEIN FROM 10-15CM THICK IS LOCATED IN A GREENISH GREY METASEDIMENT XENOLITH WHICH IS FOUND IN A REDDISH ORANGE GRANODIORITE. THE GRANODIORITE ALSO CONTAINS 1-3CM QUARTZ VEINS. THE QUARTZ VEINS IN THE GRANODIORITE CONTAIN LESS THAN 1% DISSEMINATED PYRITE WITH MINOR CHALCOPYRITE, SPHALERITE AND MALACHITE. THE PYRITE IS ALSO VISIBLE IN THE GRANODIORITE.

THE VEINS ARE FOUND IN A 5M BY 2.5M OUTCROP ON THE NORTH BANK OF THE BARACHOIS RIVER.

SAMPLE
K07-03(01): GRAB SAMPLE OF THE VEINS, METASEDIMENT AND GRANODIORITE.

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\07 ST ANNS, 1:50,000

GSC OF 1594 GEOLOGY, BARR, RAESIDE AND JAMIESON, 1:50,000, 1987

BIBLIOGRAPHY :

DOUGLAS, G.V. AND C.O. CAMPBELL : BARASOIS AND INDIAN BROOK AREA, NSDME ANNUAL REPORT 1946, P227

NSDME AR 11K\07A 21-Q-15(01) GOLD, ST ANNS MOUNTAIN

NSDME AR 86-099 GOLD, CAPE BRETON HIGHLANDS

MACDONALD,A.S. AND S.M. BARR, GEOLOGY AND AGE OF POLYMETALLIC MINERAL OCCURRENCES IN VOLCANIC AND GRANITOID ROCKS ST ANNS AREA, CAPE BRETON ISLAND, GSC REPORT 85-1B, P117-124

BARR,S.M, R.P. RAESIDE AND A.S. MACDONALD: GEOLOGY OF THE SOUTHEASTERN CAPE BRETON HIGHLANDS, NOVA SCOTIA, GSC PAPER 85-1B, P103-109, 1985

REMARKS :

A GOLD GEOCHEMICAL ANOMALY IS LOCATED DOWNSTREAM OF THE VEIN.(AR 86-099) IT IS NOT CLEAR WHETHER THE ANOMALY IS LINKED WITH THE VEIN.IT IS ALSO NOT CLEAR WHETHER THE FIELD CHECK IN 1990 LOCATED THE VEIN DESCRIBED BY DOUGLAS. THE VEIN DESCRIBED BY DOUGLAS SHOULD HAVE BEEN LOCATED APPROXIMATELY 300 METRES ABOVE THE BRIDGE. NO VEIN WAS FOUND AT THAT LOCATION.

VERIFICATION :

THE OCCURRENCE WAS LOCATED IN THE FIELD BY NSDME.(DOUGLAS 1946) A FIELD CHECK BY NSDME STAFF IN 1990 COULD NOT LOCATE ANY VEIN IN THE INDICATED POSTION. A VEIN WAS LOCATED IN THE VICINITY AND SAMPLED.

ASSAY DATA

AN ANALYSES BY DOUGLAS 1946 SHOWED 0.04 OZ OF GOLD PER TON.

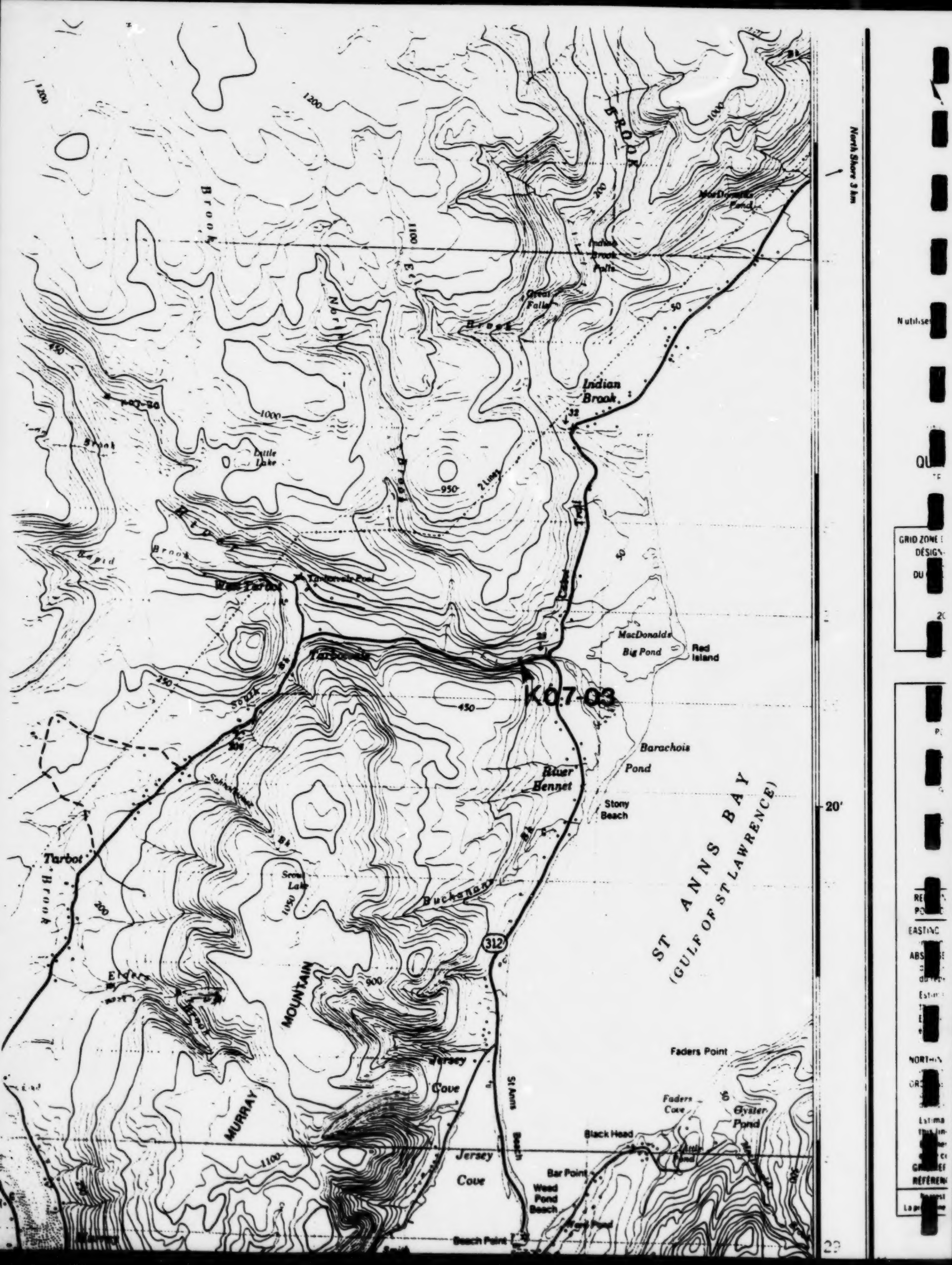
NSDME 1990
BONDAR CLEGG AU+33

SAMPLE NUMBER		K07-03(01)
ELEMENT	UNITS	
NA	PCT	0.88
SC	PPM	5.1
CR	PPM	410
FE	PCT	1.6
CO	PPM	<10
NI	PPM	<20
ZN	PPM	<200
AS	PPM	2
SE	PPM	<10
BR	PPM	<1
RB	PPM	99
ZR	PPM	<500
MO	PPM	2
AG	PPM	<5
CD	PPM	<10
SN	PPM	<200
SB	PPM	1.4
TE	PPM	<20
CS	PPM	2
BA	PPM	480
LA	PPM	13
CE	PPM	40
SM	PPM	2.1
EU	PPM	<2
TB	PPM	<1
YB	PPM	<5
LU	PPM	<0.5
HF	PPM	3
TA	PPM	<1
W	PPM	<2
IR	PPB	<100
AU	PPB	<5
TH	PPM	15.0
U	PPM	2.5
WT	g	13.05

SURVEYS PERFORMED

GEOLOGY, PANNING, HEAVY MINERAL STREAM SEDIMENT GEOCHEMICAL

COMPILED BY :GARTH DEMONT APRIL, 1989
UPDATED BY :GARTH DEMONT, DEC,1990
FIELD CHECKED BY :G.DEMONT AND C.WILLIAMS, JULY,1990


BROOK
Indian
North Shore 3 km
MacDonalds Pond
Indian Brook Falls
Great Falls
Brook
North
Brook
East
Indian Brook
32
2 Lines
Trail
1200
1100
1000
950
450
400
250
200
50
K07-30
Brook
Little Lake
River
Rapid
Brook
West Tarbot
Tarbotvale Pool
Tarbotvale
South Br
28
K07-03
MacDonalds Big Pond
Red Island
Barachois Pond
River Bennet
Stony Beach
20'
ST ANNS BAY
(GULF OF ST LAWRENCE)
Schoolhouse Bk
Tarbot
Brook
Scout Lake
1050
Buchanan
312
900
MOUNTAIN
MURRAY
Elders Brook
Jersey Cove
Faders Point
Faders Cove
Oyster Pond
Black Head
Bar Point
St Anns Beach
Jersey Cove
Wood Pond Beach
Beach Point
29
N utilise
QU
GRID ZONE DESIGN
DU
EASTING
ABS
NORTHING
GRAND REFERENCE
RÉFÉRENCE

OCCURRENCE NAME : NILE BROOK

LOCATION

COUNTY : INVERNESS **CLAIM MAP :**11K\07B **TRACT :** 81 AND 88
CLAIM : M AND F

NORTHING : 5135080 AND 5133980 **EASTING :** 659240 AND 659230
ZONE : 20

DESCRIPTIVE LOCATION : TAKE THE FIELDING ROAD EXIT AT MARGAREE. TRAVEL EAST ALONG THIS ROAD FOR 3KM. AN OLD ROAD IS LOCATED ON THE RIGHT (SOUTH) SIDE OF THE FIELDING ROAD AT THIS POINT. THE ROAD IS BECOMING OVERGROWN BUT CAN STILL BE FOLLOWED ON FOOT. WALK 427M SE ALONG THIS ROAD. AT THIS POINT THE NILE BROOK VALLEY IS LOCATED IMMEDIATELY TO THE LEFT(EAST). GO DOWN THE HILLSIDE 274M (STEEP CLIMB) TO THE BROOK. FROM THIS POINT WE TRAVELLED SOUTH (DOWNSTREAM) UNTIL WE HIT THE JUNCTION OF THE TWO BRANCHES OF NILE BROOK. THE DISTANCE IS 2050M. WE THEN CHAINED UP THE BROOK FROM THE JUNCTION. THE SOUTHERN OCCURRENCE IS LOCATED ON THE WEST BANK OF THE BROOK 130M NORTH OF THE JUNCTION. THE OCCURRENCE IS IN A LOW OUTCROP WHICH IS OBSCURRED BY BRUSH. THE MAIN OCCURRENCE IS LOCATED ON THE WEST BANK OF THE BROOK 1584M NORTH OF THE JUNCTION OF THE TWO BROOKS.

SUMMARY DESCRIPTION

MINERALIZATION : CHALCOPYRITE, SPHALERITE, PYRRHOTITE, PYRITE, SILVER? AND GOLD? **COMMODITY :** CU, ZN, FE, AG AND AU

STRATIGRAPHIC UNIT : PLEASANT BAY COMPLEX AND BELLE COTE ROAD GNEISS **AGE :** SILURIAN

HOST ROCK : QUARTZ-FELDSPAR-BIOTITE-GNEISS

STATUS : THE MINERALIZATION IS FOUND IN OUTCROP.

GEOLOGICAL ENVIRONMENT :

MILLIGAN 1970 ; " THE HOST ROCK HERE IS IN THE SILLIMANITE ZONE OF REGIONAL METAMORPHISM (SILLIMANITE- ALMANDINE SUB-FACIES) AND THE EXTENSIVE RECRYSTALLIZATION HAS GENERATED A GRANITOID GNEISS. IN MANY PLACES, THE GNEISS HAS THE LOOK OF A SHEARED GRANITE, BUT ORIGINAL COMPOSITIONAL BANDING IS PRESERVED.

THE CHARACTERISTIC FEATURE, HERE AGAIN, IS THE OCCURRENCE OF MINERALS OF THE GREENSCHIST FACIES IN THIS HIGH GRADE ASSEMBLAGE. SULPHIDE MINERALIZATION IS CONFINED IN A SHEAR ZONE, AND THERE IS A HALO OF LOW GRADE MINERALS AROUND IT. THE ZONE IS COMPLEX AND, UNDER THE MICROSCOPE, IT HAS BEEN FOUND THAT THERE ARE NUMEROUS MINOR FRACTURES CHARACTERIZED BY BIOTITE, CHLORITE, EPIDOTE, AND LIMONITE. IN HAND SPECIMENS, THESE FRACTURES APPEAR AS THIN GREENISH BLUE STREAKS."

REFERENCE DESCRIPTION :

REF 1 (1966) : " THE SHOWING IS LOCATED IN WHAT APPEARS TO BE THE APEX OF A VERTICAL INCLUSION OF A METAMORPHOSED VOLCANIC OR SEDIMENTARY ROCK TYPE. THE INCLUSION IS STRONGLY SHEARED AND SILICIFIED AND AVERAGE 30% SULPHIDES AT BROOK LEVEL. THE INCLUSION IS EXPOSED ON A VERTICAL ROCK FACE 27 FEET HIGH AND MEASURES 4 INCHES IN WIDTH AT THE APEX AND A GOOD 5 FEET AT BROOK LEVEL. COPPER, LEAD AND ZINC SULPHIDES ARE RECOGNIZABLE IN HAND SPECIMENS. ASSAY OF MATERIAL TAKEN FROM THE SHOWING SHOWED GOLD AND SILVER VALUES.

THE FIRST INDICATION OF MINERALIZATION WAS A MINOR GOSSAN ZONE MEASURING 4 TO 5 INCHES IN WIDTH. SYSTEMATIC BLASTING HAS INDICATED A ZONE THAT APPEARS TO BE WIDENING WITH DEPTH AND WITH AN INCREASING SULPHIDE CONTENT. DETAILED PROSPECTING OVER A SURFACE SOME 1250 FEET LONG AND 60 FEET WIDE, LAID BARE BY A ROCK AND SOIL SLIDE SHOWS A NUMBER OF MINOR SCHISTED AND SHEARED ZONES THAT APPEAR TO HAVE CHARACTERISTICS RELATED TO THE MATERIAL AND STRUCTURE OF THE SHOWING. THESE ZONES ARE NOT MINERALIZED."

THE MINERALIZATION IS LOCATED IN A SHEAR ZONE IN THE GNEISS ON THE WEST SIDE OF THE NORTH BRANCH OF NILE BROOK.(4) THERE ARE TWO AREAS OF MINERALIZATION .. AREA ONE IS LOCATED ONE MILE NORTH OF THE JUNCTION OF THE NORTH AND SOUTH BRANCHES OF NILE BROOK.(4) THIS IS THE PRINCIPAL OCCURRENCE WHICH WAS LOCATED AND SAMPLED BY SKOTYNSKY IN 1966. (1) THE SULPHIDE OCCURS IN A SHEAR ZONE MARKED BY BIOTITE SCHIST.(2) THE ZONE STRIKES N10W AND DIPS 70-80 DEG EAST.(2)

THE MINERALIZED SHEAR ZONE WAS EXPOSED OVER A LENGTH OF 5 METRES AND A WIDTH OF 1-2 METRES (2) THE SULPHIDE MINERALIZATION CONSISTS OF CHALCOPYRITE, PYRITE, PYRRHOTITE AND MINOR SPHALERITE (3) SMALL AMOUNTS OF SILVER AND GOLD ARE REPORTED IN ASSAYS (1) SERICITE AND CHLORITE ALTERATION IS DISTINCT IN THE WALL ROCK AND MINOR EPIDOTE OCCURS AS THIN STRINGERS.(2) CHALCOPYRITE MAKES UP THE PRINCIPAL SULPHIDE MINERAL AND OCCURS INTERSTITAL TO THE PYRITE AND PARTLY REPLACED BY SPHALERITE (3). THE PYRITE IS AN EARLY MINERAL (3) THE SPHALERITE FORMS SMALL MASSES AND OCCURS INTERSTITAL BETWEEN PYRITE AND CHALCOPYRITE (3) A ZONING OF ALTERATION WAS NOTED BY CHATTERJEE(3). ZONE 1 IS THE SHEAR ZONE CHARACTERIZED BY BIOTITE AND MINOR CHLORITE. ZONE 2 IS A SERICITIZED ZONE COMPOSED CHIEFLY OF SERICITE AND SCATTERED FLAKES OF CHLORITE. THE ORIGINAL TEXTURES HAVE BEEN REMOVED. ZONE 3 IS THE GNEISS WHICH RETAINS MOST OF THE STRUCTURES AND TEXTURE. THE BOUNDARY BETWEEN ZONE 1 AND ZONE 2 IS SHARP. THE ALTERATION ZONE EXTENDS UP TO 45 METRES FROM THE SULPHIDES. (3)

THE SECOND ZONE IS LOCATED ON THE WEST SIDE OF NILE BROOK APPROXIMATELY 152 METRES ABOVE THE JUNCTION OF THE NORTH AND SOUTH BRANCHES OF NILE BROOK.(4)CHALCOPRITE AND PYRITE WERE FOUND IN A 0.7 METRE WIDE ZONE STRIKING 320 DEG AND DIPPING 80 DEG EAST IN THE QUARTZ FELDSPAR BIOTITE GNEISS.(4) (NOTE THE NUMBERS IN BRACKETS REFER TO THE NUMBERS OF THE LISTED REFERENCES)

FIELD DESCRIPTION :

AUGUST,1990 THE SOUTHERN OCCURRENCE IS LOCATED ON THE WEST SIDE OF THE BROOK APPROXIMATELY 130M FROM THE BROOK JUNCTION. THE OUTCROP IS LOCATED APPROXIMATELY 3 METRES FROM THE BANK OF THE BROOK. THE MINERALIZED AREA IS EXPOSED OVER AN AREA APPROXIMATELY 1M BY 1.5 METRES. THE ZONE STRIKES 140DEG T AND DIPS 70DEG EAST. THE HOST ROCK IS A GREY CONTORTED GNEISS UNIT. THE MINERALIZATION APPEARS TO CONFINED TO MORE SCHISTOSE AREAS OF THE GNEISS. CHALCOPYRITE AND SPHALERITE WERE NOTED IN HAND SAMPLES. THE SCHISTOSE AREAS ARE HIGHLITED BY IRON STAINING.

ANOTHER SLIGHTLY MINERALIZED AREA IS LOCATED IN OUTCROP ON THE EAST BANK OF THE BROOK 170 METRES ABOVE THE JUNCTION OF THE BROOKS. STEEPLY DIPPING FOLIATION IS SEEN IN THE GNEISS. THERE ARE AREAS WITH SLIGHT SCHISTOSE DEVELOPMENT. SMALL AMOUNTS OF CHALCOPYRITE CAN BE SEEN IN THE SCHISTOSE AREAS.THE ONLY APPARENT DIFFERENCE BETWEEN THIS OUTCROP AND THE SOUTHERN OCCURRENCE IS A DECREASE IN SERICITE CONTENT.

ON THE WEST SIDE OF THE STREAM 180 M FROM

THE JUNCTION ANOTHER MINOR GOSSANIFEROUS ZONE WAS NOTED.THE ZONE STRIKES 320 DEG T WITH A VERTICAL DIP. THE SLIGHTLY MINERALIZED ZONE FOLLOWS THE FOLIATION PLANES AND IS APPROXIMATELY 10CM WIDE.

ON THE WEST BANK, 829 M FROM THE JUNCTION, STEEPLY DIPPING FOLIATION IS VISIBLE. THE PHOTOGRAPHS IN THE PHOTO-JOURNAL SHOW THIS . THE FOLIATION STRIKES 350DEG AND DIPS 55 DEG EAST.

ON THE EAST BANK 1450 METRES FROM THE JUNCTION A LARGE WASHOUT CAN BE SEEN ON THE HILLSIDE. THIS IS THE LARGE OUTCROP AREA SEEN ON THE AIR PHOTOS AND MENTIONED IN MILLIGAN'S REPORT.

THE MAIN SHOWING IS LOCATED AT A DISTANCE OF 1584 METRES FROM THE BROOK JUNCTION. THE MAIN SHOWING CONSISTS OF AN ANTICLINAL TYPE STRUCTURE. THE SHOWING IS LOCATED ON THE WEST BANK OF THE BROOK. IT STRIKES 340 DEG AND DIPS 80 DEG E. THE SHOWING IS EXPOSED OVER 15M IN A 10M HIGH OUTCROP. THE ANTICLINAL TYPE STRUCTURE IS SEEN IN BOTH ENDS OF THE OUTCROP. THE NORTH END GIVES THE BEST EXPOSURE. THE GOSSANIFEROUS ZONE WHICH MAKES UP THE CORE OF THE STRUCTURE IS NOT SEEN AT THE SOUTH END. THE SHOWING IS IN A GNEISSIC UNIT, ALTHOUGH IT APPEARS TO GRADE INTO A GRANITIC UNIT ON THE WEST SIDE. CHALCOPYRITE , SPHALERITE AND PYRITE WERE THE ONLY SULPHIDES NOTED. THE SHOWING IS WELL DESCRIBED IN THE LITERATURE AND WILL NOT BE FURTHER DISCUSSED HERE.

SAMPLES

K07-04 (01); GRAB SAMPLE SOUTHERN OCCURRENCE : GREY GNEISSIC UNIT. SEREICITE DEVELOPED ON FOLIATION PLANES. SAMPLE FROM MORE SHEARED AREA. SMALL AMOUNTS OF VISIBLE BLEBS OF CHALCOPYRITE AND PYRITE ALONG FOLIATION PLANES. OUTCROP HEAVILY WEATHERED SO THE SULPHIDE CONTENT IS PROBABLY REDUCED.

K07-04 (02); GRAB SAMPLE HOST ROCKS SOUTHERN OCCURRENCE : MASSIVE GREY GNEISS. THE ONLY APPARENT DIFFERENCE BETWEEN SAMPLE 1 AND 2 IS A LOWER SERICITE CONTENT IN SAMPLE 2. PERHAPS LESS SHEARED? KINK FOLDING IS APPARENT IN THE HAND SPECIMENS. SMALL BLEBS OF PYRITE AND CHALCOPYRITE ALONG FOLIATION PLANES. ONE SAMPLE CONTAINS A FEW SMALL PATCHES OF A BLUE METALLIC MINERAL (COVELLITE?).

K07-04 (03); GRAB SAMPLE FROM OCCURRENCE LOCATED 170M FROM THE BROOK JUNCTION : GREY MASSIVE GNEISS SAME AS (02) . LESS THAN 1% PYRITE AND CHALCOPYRITE AS BLEBS ALONG FOLIATION PLANES.

K07-04 (04); GRAB SAMPLE FROM GOSSANIFEROUS ZONE LOCATED 180M FROM THE BROOK JUNCTION: CONTACT OF GREY MASSIVE GNEISS AND AN ORANGE FOLIATED GRANITE. SOME MINOR DISSEMINATED PYRITE AND CHALCOPYRITE. THE GNEISS HAS LESS DEVELOPED FOLIATION THAN IN PREVIOUS SAMPLES.

K07-04 (05); GRAB SAMPLE OF AN ALTERED ZONE LOCATED

ON THE WEST SIDE OF THE OUTCROP HOSTING THE MAIN SHOWING (SEE PHOTO); GREY GNEISS MODERATE SERICITE DEVELOPMENT. LESS THAN 2% DISSEMINATED PYRITE AND CHALCOPYRITE, AS ELONGATED BLEBS ALONG FOLIATION PLANES. (NOTE THE ROCK MAY ACTUALLY BE GRANITIC. ONE OF THOSE HAZY SAMPLES)
K07-04 (06); GRAB SAMPLE OF MAIN ZONE ; GREY GNEISS-SHEARED-HEAVY SERICITE DEVELOPMENT. 3-5% PYRITE AND CHALCOPYRITE ALONG ALONG BROKEN FOLIATION PLANES.
K07-04 (07); GRAB SAMPLE OF THE HOST ROCKS AT THE MAIN SHOWING ; HOST ROCK SAMPLES : GREY MASSIVE GNEISS AND REDDISH ORANGE FOLIATED GRANITE

REFERENCE INFORMATION

MAP REFERENCES :
NTS 11K\07 ST ANNS , 1:50,000

GSC MAP 38-1960 GEOLOGY, D.G. KELLEY, ONE INCH TO ONE MILE, 1960

GSC OF 1594, GEOLOGY, S.M.BARR, R.P.RAESIDE AND R.A.JAMIESON, 1:50,000, 1987 (NO LOCATION GEOLOGY ONLY)

BIBLIOGRAPHY :
(1) NSDME AR 11K\07B 13-J-48(01) COPPER, NILE BROOK

(2) MILLIGAN, G.C. : GEOLOGY OF THE GEORGE RIVER SERIES, CAPE BRETON, NSDME MEMOIR 7, 1970, P89 AND 95

(3) CHATTERJEE, A.K.: MINERALIZATION AND ASSOCIATED WALL ROCK ALTERATION IN THE GEORGE RIVER GROUP, CAPE BRETON ISLAND, PHD THESIS, DALHOUSIE UNIV, 1980

(4) MACNABB, B.E.,J.H. FOWLER AND T.G.N. COVERT: GEOLOGY, GEOCHEMISTRY AND MINERAL OCCURRENCES OF THE NORTHEST MARGAREE RIVER DRAINAGE BASIN, NSDME PAPER 76-4, 1976

REMARKS :

VERIFICATION :
THE OCCURRENCES WERE LOCATED IN THE FIELD BY NSDME PERSONNEL IN 1970 ,1976 AND 1990.

ASSAY DATA
REF 1 (1966)
SAMPLE A A 10LB REPRESENTATIVE CHIP SAMPLE OF ROTTEN QUARTZ AND MINERALIZED SHEAR MATERIAL

AG 0.58OZ CU 1.88% ZN 1.55% PB NIL
SAMPLE B A 5 POUND REPRESENTATIVE GRAB SAMPLE
AG 0.69OZ CU 1.73% ZN 1.25% PB 1.03% AU 0.008OZ
SAMPLE C
AG 0.92 OZ CU 2.76% ZN 1.86% PB 1.93% AU TRACE

SAMPLE OF SILICIFIED MATERIAL TESTED AT N.S TECH GAVE 0.005 OZ A
AND 0.76 OZ AG

REF 4 (1976)
SAMPLES CBF 17,18 AND 19 WERE TAKEN FROM THE MINERALIZED SHEAR ZONE AND THE HOST ROCK. CBF 17 REPRESENTS A COMBINED SAMPLE OF THE HOST ROCK ON EACH SIDE OF THE SHEAR, SAMPLE CBF 18 IS FROM THE SHEAR AT THE CONTACT WITH THE HOST ROCK AND CBF 19 IS FROM THE SHEAR ZONE. SAMPLE CBF 20 WAS TAKEN FROM A SMALLER MINERALIZED SHEAR 10 FEET DOWNSTREAM ON THE WEST SIDE OF THE BROOK. SAMPLE CBF 21 WAS TAKEN FROM THE SOUTHERN OCCURRENCE.

			PPM							PPM	
SAMPLE	CU	PB	ZN	NI	CR	MO	CD	SN	W	AG	AU OZ\TON
CBF 17	390	30	280	20	23	0.5	0.4	ND	ND	0.8	<0.001
CBF 18	580	20	300	50	23	0.5	0.4	<10	<1.0	0.5	<0.001
CBF 19	460	120	800	50	44	4.0	3.0	ND	ND	34	0.0145
CBF 20	1200	40	250	30	26	16	0.8	<10	<1.0	6	<0.001
CBF 21	1600	250	9600	30	26	1.0	19	<10	<1.0	4.5	<0.001

NSDME 1990
BONDAR CLEGG AU+33

SAMPLE		K07-04(01)	(02)	(03)	(04)	(05)	(06)
ELEMENT	UNITS						
NA	PCT	0.70	0.56	1.80	1.70	0.14	0.12
SC	PPM	10.0	14.0	16.0	22.0	7.5	3.0
CR	PPM	230	310	160	180	220	460
FE	PCT	3.5	3.5	3.3	7.9	5.8	6.9
CO	PPM	54	110	<10	15	17	<10
NI	PPM	<20	<20	<20	<20	<20	<20
ZN	PPM	1800	7600	720	<200	<200	3800
AS	PPM	157	291	6	1	4	15
SE	PPM	<10	<10	<10	<10	<10	15
BR	PPM	3	4	<1	<1	1	<1
RB	PPM	120	100	110	120	130	43
ZR	PPM	<500	<500	<500	<500	<500	<500
MO	PPM	12	16	14	<2	11	75
AG	PPM	<5	<5	<5	<5	<5	11
CD	PPM	<10	12	<10	<10	<10	13
SN	PPM	<200	<200	<200	<200	<200	<200
SB	PPM	0.5	0.8	0.3	0.6	0.2	0.8
TE	PPM	<20	<20	<20	<20	<20	<20
CS	PPM	<1	<1	2	7	1	1
BA	PPM	1600	1000	1600	410	1100	2500
LA	PPM	<5	<5	9	48	<5	<5
CE	PPM	<10	<10	22	110	11	<10
SM	PPM	2.6	1.4	3.9	11.0	0.6	0.3

EU	PPM	<2	<2	<2	<2	<2	<2
TB	PPM	<1	<1	<1	2	<1	<1
YB	PPM	<5	<5	<5	<5	<5	<5
LU	PPM	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HF	PPM	2	<2	3	7	2	<2
TA	PPM	<1	<1	<1	1	<1	<1
W	PPM	<2	<2	<2	15	<2	<2
IR	PPB	<100	<100	<100	<100	<100	<100
AU	PPB	6	<5	6	<5	16	37
TH	PPM	3.8	1.2	5.6	8.0	3.4	0.8
U	PPM	1.3	<0.5	3.0	7.2	2.6	1.1
WT	g	13.85	12.79	12.73	14.48	14.70	14.30

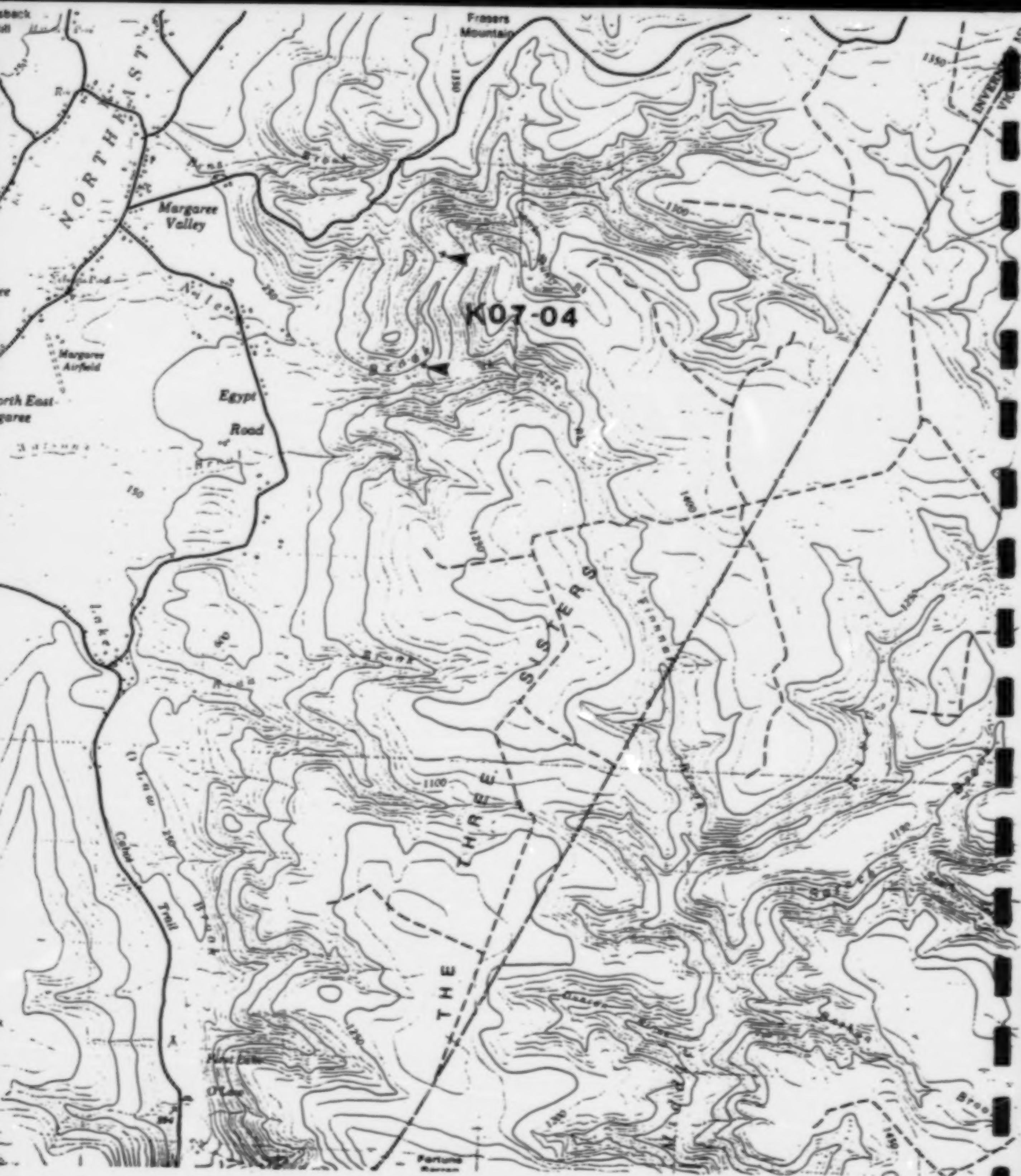
BONDAR CLEGG ATOMIC ABSORPTION

SAMPLE	K07-04	(01)	(02)	(03)	(04)	(05)	(06)
ELEMENT	UNITS						
CU	PPM	641	1820	44	13	661	6740
ZN	PPM	1990	8300	674	169	174	4330
AG	PPM	1.3	2.0	0.9	0.4	3.4	10.0
PB	PPM	66	64	48	9	52	174
BI	PPM	<1	3	<1	<1	18	9

SURVEYS PERFORMED

GEOLOGY, BLASTING OFF CLIFF FACE

COMPILED BY :GARTH DEMONT, MAY, 1989
UPDATED BY :GARTH DEMONT, DEC,1990
FIELD CHECKED BY :G.DEMONT AND C. WILLIAMS, AUG, 1990


Frasers Mountain
NORTHEAST
Margaree Valley
Margaree Airfield
orth East
garee
Egypt
Road
K07-04
THE THREE SISTERS
Lake O'Law
Cabot Trail
First Lake O'Law
Fortune Barren
INVERNESS
VICTORIA
1100
1350
150
250

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER :**K07-18

OCCURRENCE NAME : ELDERS BROOK

LOCATION

COUNTY : VICTORIA **CLAIM MAP :**11K\07A **TRACT :** 53 **CLAIM :** K AND N

NORTHING : 5131680, 5131720 AND 5131640 **EASTING :** 685390, 684610 AND 684650 **ZONE :** 20

DESCRIPTIVE LOCATION : START AT THE POINT WHERE ELDERS BROOK CROSSES THE CABOT TRAIL. AT THIS POINT HEAD EAST (UPSTREAM) ALONG THE BROOK. HORTON SEDIMENTS ARE NOTED ALONG THE FIRST 740M OF THE BROOK. AT A DISTANCE OF 740M FROM THE ROAD A CONTACT CAN BE SEEN BETWEEN THE HORTON ROCKS AND A RED GRANITIC ROCK. THE CONTACT IS OBSCURRED BY GRAVEL SO THE CONTACT RELATIONSHIP CAN NOT BE SEEN. AT A DISTANCE OF 756M A WHITE QUARTZ VEIN CUTS THE GRANITE. A SIMILAR VEINING SYSTEM CUTS THE GRANITE AT A DISTANCE OF 805M FROM THE ROAD. AT A DISTANCE OF 1611M THE BROOK SPLITS. TAKE THE BRANCH WHICH ENTERS FROM THE EAST. THE MAIN SHOWING IS LOCATED ON THE NORTH BANK AT A DISTANCE OF 173M FROM THE JUNCTION. A BLASTED AREA EXPOSING THE VEINS IS VISIBLE AT THIS POINT.

SUMMARY DESCRIPTION

MINERALIZATION : GALENA, CHALCOPYRITE, GOLD AND SPHALERITE
COMMODITY : PB, CU, AU AND ZN

STRATIGRAPHIC UNIT : PRICE POINT FORMATION AND KERRS BROOK GRANITE **AGE :** HADRYNIAN

HOST ROCK : RHYOLITE?

STATUS : THE OCCURRENCE IS FOUND IN OUTCROP.

GEOLOGICAL ENVIRONMENT :

BARR ET AL (1985) :" SULPHIDE SHOWINGS IN THE ST.ANNS AREA INCLUDE POLYMETALLIC QUARTZ-CALCITE VEINS AND BARREN PYRITIC OCCURRENCES IN BOTH GRANITOID AND OLDER VOLCANIC ROCKS. THE VOLCANIC ROCKS CONSIST OF INTERMEDIATE LITHIC CRYSTAL TUFFS AND FLOWS OF CALC-ALKALIC AFFINITY WHICH ARE PROBABLY LATE HADRYNIAN IN AGE AS THEY HAVE BEEN INTRUDED BY A LATE HADRYNIAN-CAMBRIAN GRANITOID SUITE INCLUDING GRANITE, GRANODIORITE, LEUCOGRANITE, AND QUARTZ MONZODIORITE. CU-MO-AU BEARING VEINS ARE HOSTED MAINLY BY THE GRANITOID ROCKS AND RARER CU-ZN-PB-AG VEINS BY THE VOLCANIC ROCKS, BUT BOTH VEIN TYPES EXHIBIT SIMILAR ORIENTATIONS AND MORPHOLOGICAL TEXTURAL FEATURES, SUGGESTING A COMMON ORIGIN.

PRICE POINT VOLCANIC ROCKS

VOLCANIC ROCKS, HERIN REFERRED TO AS THE PRICE POINT UNIT, FLANK AND TRANSECT THE GRANITOID ROCKS OF MURRAY MONTAIN. ALTHOUGH MOST CONTACTS ARE FAULTS, INTRUSIVE CONTACTS ARE EXPOSED LOCALLY WITH THE INDIAN BROOK GRANODIORITE NEAR WHERE THE CABOT TRAIL CROSSES THE BARACHOIS RIVER AND WITH THE ST ANNS LEUCOGRANITE NEAR PRICE POINT. A VARIETY OF GRANITOID DYKES OCCUR ALSO IN THE VOLCANIC ROCKS.

THE VOLCANIC ROCKS ARE ESSENTIALLY INTERMEDIATE IN BULK COMPOSITION AND CONSIST MAINLY OF CRYSTAL AND LITHIC-CRYSTAL TUFFS TOGEATHER WITH LESS ABUNDANT ANDESITIC-DACITIC FLOWS.NO SEDIMENTARY ROCKS WERE OBSERVED IN THE SEQUENCE.

ALL OF THE VOLCANIC ROCKS ARE MODERATELY ALTERED AND GENERALLY CONSIST OF SAUSSURITIZED FELDSPAR, QUARTZ, CHLORITE, EPIDOTE, ACTINOLITE, CALCITE, SERICITE, AND OPAQUE MINERALS. ALTHOUGH SOME LOCALLY ARE CUT BY QUARTZ-CALCITE VEINS AND MINERALIZED WITH SULPHIDES, THE PERVASIVE ALTERATION IS CONSIDERED TO BE OF LOW GRADE METAMORPHIC ORIGIN. HOWEVER, NO SYSTEMATIC FOLIATION WAS RECOGNIZABLE IN THESE ROCKS.

GRANITOID ROCKS:

GRANITOID ROCKS OF THE AREA ARE DIVIDE INTO SIX MAIN UNITS, INTRUDED BY DYKES OF DIORITE, QUARTZ- FELDSPAR PORPHRY, AND APLITE. THE LARGEST UNIT IS THE INDIAN BROOK GRANODIORITE, COMPOSED OF BIOTITE- HORNBLENDE GRANODIORITE GRADATIONAL TO GRANITE, WHICH EXTENDS TO THE NORTH OF THE PRESENT MAP AREA. TOWARDS ITS WESTERN MARGIN, WHERE IT HAS INTRUDED A BELT OF GNEISSIC ROCKS, IT CONTAINS INCREASINGLY ABUNDANT STRONGLY ALIGHNED XENOLITHS OF GNEISES. BODIES OF BIOTITE GRANITE WHICH OCCUR

WITHIN THE THE INDIAN BROOK PLUTON IN THE WESTERN PART OF THE MAP AREA ARE INFERRED TO BE PART OF THE BIRCH PLAIN GRANITE, A MAJOR PLUTON TO THE NORTH WHICH APPEARS TO HAVE BEEN INTRUDED BY THE INDIAN BROOK GRANODIORITE.

TWO SMALL INTRUSIONS IN THE MURRAY MOUNTAIN AREA ARE CONSIDERED TO BE REALTED TO THE INDIAN BROOK GRANODIORITE. ALTHOUGH LESS MAFIC THAN MUCH OF THE GRANODIORITE, THE KERRS BROOK HORNBLENDE-BIOTIETE GRANITE IS CONSIDERED TO BE A VARIANT OF THE INDIAN BROOK UNIT BECAUSE THE PRESENCE OF AMPHIBOLE, NOT A FEATURE OF THE BIRCH PLAIN GRANITE. THE MURRAY BROOK GRANODIORITE IS PETROGRAPHICALLY SIMILAR TO THE INDIAN BROOK UNIT BUT IS WIDELY AFFECTED BY ALTERATION, VEINING, AND MINERALIZATION.

THE DISTINCTIVE PINK TO RED ST ANNS LEUCOGRANITE, WITH ASSOCIATED APLITE, OCCURS IN THREE SEPERATE BODIES, INTRUDING INDIAN BROOK GRANODIORITE, KERRS BROOK GRANITE, AND MURRAY BROOK GRANODIORITE. FARTHER TO THE NORTH AND EAST, THE CENTRAL PART OF THE MAP AREA IS OCCUPIED BY THE MURRAY MOUNTAIN QUARTZ MONZODIORITE, A NARROW BODY, ELONGATE NORTH SOUTH, OF INHOMOGENOUS FINE GRAINED PORPHYRITIC TO MEDIUM GRAINED SUBPORPHYRITIC QUARTZ MONZODIORITE. THIS UNIT IS INFERRED TO BE THE YOUNGEST OF THE MAIN INTRUSIONS, AS IT APPARENTLY INTRUDED THE INDIAN BROOK GRANODIORITE, AND QUARTZ MONZODIORITE DYKES ARE ALSO PRESENT IN BOTH THE MURRAY BROOK GRANODIORITE AND THE ST ANNS LEUCOGRANITE."

THE ABOVE EXCERPTS ARE TAKEN FROM THE REPORT BY ALAN S. MACDONALD AND SANDRA M. BARR. (GSC PAPER 85-1B)

REFERENCE DESCRIPTION :

FLETCHER 1876 :"ON DONALD MCDONALDS FARM, ABOUT A MILE NORTH OF THE BRIDGE AT THE HEAD OF TIDE WATER IN NORTH RIVER, A MUCH MORE IMPORTANT DEPOSIT HAS BEEN MINED BY MESSRS. INGRAHAM, BLACKETT, GISBORNE, DR. MCKAY AND OTHERS, WITHOUT SATISFACTORY RESULTS. THE VEIN IS ILL DEFINED, BUT VARIES FROM TWO OR THREE INCHES TO A FOOT IN THICKNESS, BEING IN ONE PLACE SPLIT BY A BAND OF EIGHTEEN INCHES MIXED QUARTZ AND FELDSPAR. THE VEINSTONE IS QUARTZ, OFTEN BRECCIATED, CARRYING GALENA, COPPER PYRITES AND BLACK BLENDE IN ABUNDANCE. A PARTING DIVIDES IT FROM THE OVERLYING ROCK, WHILE THE LOWER, AND GENERALLY THE RICHEST PART, ADHERES STRONGLY TO THE FOOTWALL. THE TREND OF THIS VEIN IS ABOUT N 26W IN ONE PLACE NORTH 6W. THE DIP EASTERLY AT AN ANGLE OF 45 DEG: BUT BOTH STRIKE AND DIP ARE VARIABLE. THE WALL ROCK IS A GREENISH , JOINTED, PORPHYRITIC FELSITE, FOLLOWED HIGHER IN THE BROOK BY RED AND GREEN

MOTTLED FELSITES, LIKE THOSE OF GABARUS, LOUISBURG AND COXHEATH."

FLETCHER 1886 P14 :" THE SYENITE OF ELDER BROOK HAS AN OBSCURE WESTERLY DIP OR JOINTING WITH WHICH THE DYKES COINCIDE, BUT HIGHER UP ALTERNATIONS OF EPIDOTIC PORPHRY, DIORITE AND OTHER COXHEATH ROCKS CONTAIN THE SILVER MINE."

P94H :" SOME FURTHER DESULTORY WORK HAS BEEN DONE AT THE NORTH RIVER OF ST ANNS, AT THE MINE. IN THE WORKINGS THE VEIN NOW DIPS N 83 E <30DEG, AND CARRIES CALSPAR, VARYING FROM 1 FOOT 7 INCHES DOWNWARD, BUT WHERE THICKEST IT IS BARREN AND SPLIT BY BANDS OF THE COUNTRY ROCK. IN ONE PLACE IT IS SIX INCHES THICK AND CONTAINS THREE QUARTERS OF AN INCH OF GALENA, BUT GENERALLY THE GALENA IS MIXED WITH YELLOW AND PURPLE COPPER ORE, OR SOMETIMES NEARLY REPLACED BY BLACK BLENDE."

AN EXAMINATION WAS MADE BY NSDME IN 1937. ON THE NORTH BANK OF THE BROOK A SMALL EXPOSURE OF SYENITE WAS SEEN CONTAINING A 4 TO 6 INCH QUARTZ VEIN STRIKING N 20E AND DIPPING 52DEG E. THE VEIN HAD BEEN DYNAMITED SEVERAL YEARS BEFORE. THE VEIN WAS EXPOSED FOR 6 TO 8 FEET.

DOUGLAS 1946 :" APPROXIMATELY ONE MILE ABOVE M.MCDONALDS AT TARBOT ON ELDERS BROOK OCCURS A VEIN CONTAINING GALENA. ABOUT ONE MILE FROM WHERE IT CROSSES THE MAIN ROAD, THIS BROOK FORMS TWO BRANCHES. EIGHT HUNDRED FEET UP THE EAST BRANCH IS A 5" VEIN OF CHALCOPYRITE AND GALENA ON WHICH SOME PROSPECTING WAS DONE FOR SILVER.

THE VEIN OCCURS IN A FISSURE IN A LARGE MASS OF AMPHIBOLITE STRIKING 13 DEG MAGNETIC AND DIPPING 45 DEG EAST. A TWENTY FIVE FOOT STRIKE LENGTH IS EXPOSED IN THE BED OF THE BROOK. ALONG STRIKE 150 FEET TO THE SOUTH ARE LARGE BOULDERS OF CARBONATE BUT THE SCREE COVERS THE HILLSIDE.

IT OCCURS IN A FAULT ZONE, SLICKENSIDING BEING ABUNDANT. IN LARGER PIECES OF THE VEIN, THE COUNTRY ROCK APPEARS AS A WELL DEFINED BRECCIA. QUARTZ PREDOMINATES BUT THERE IS A LARGE AMOUNT OF CARBONATE. THE MINERAL IS DISSEMINATED THROUGHOUT THE SURROUNDING AMPHIBOLITE. THERE ARE MANY SMALL VEINLETS, 1\2" TO 3" IN WIDTH, BRANCHING OFF FROM THE MAIN VEIN WHICH HAS A WIDTH OF FOUR INCHES. THE GALENA OCCURS IN BLEBS AND IS NOT UNIVERSALLY DISTRIBUTED THROUGHOUT THE VEIN AS IS THE CHALCOPYRITE WHICH IS QUITE ABUNDANT. THE VEIN IS MINERALIZED THROUGHOUT ITS EXPOSED STRIKE LENGTH. ANALYSIS OF THIS VEIN FOR GOLD GAVE 0.04 OZ. PER TON."

FIELD DESCRIPTION :

JULY,1990

AT A DISTANCE OF 756M FROM THE ROAD A QUARTZ VEIN WAS NOTED CUTTING THE RED GRANITIC ROCK. THE VEIN OCCURS ADJACENT TO A BLACK DIABSE DYKE THE VEIN STRIKES 039 DEG MAGNETIC AND DIPS 043 DEG NW. THE VEINING IS SIMILAR IN APPEARENCE TO THOSE IN MURRAY BROOK AND ALONG THE SHORE AT MURRAY POINT. THE VEIN IS EXPOSED OVER A WIDTH OF 3M BY 1M. MINOR SPECKS OF CHALCOPYRITE WERE NOTED IN THE VEIN.

ANOTHER QUARTZ STOCKWORK TYPE SYSTEM IS VISIBLE IN THE BED OF THE BROOK AT A DISTANCE OF 805M FROM THE ROAD. THE VEINING IS EXPOSED IN THE BED OF THE BROOK OVER AN AREA OF 2M BY 1M. MINOR AMOUNTS OF CHALCOPYRITE WAS NOTED IN THE VEINS.(SEE PHOTO JOURNAL FOR PICTURES OF BOTH VEINS)

THE MAIN OCCURRENCE IS LOCATED AT A DISTANCE OF 173M UP A SIDE BROOK. THE VEINS ARE EXPOSED IN A BLASTED AREA TO THE NORTH OF THE BROOK AND IN THE BED OF THE BROOK. THE MAIN VEIN IS COMPOSED OF WHITE QUARTZ AND STRIKES 040DEG MAG WITH A DIP OF 46DEG E. SLICKENSLIDING CAN BE SEEN ON THE UPPER FACE OF THE VEIN. THE MAIN VEIN IS APPROXIMATELY 10CM THICK. A SECOND 2CM VEIN PARALLELS IT IN THE BLASTED AREA BUT NOT IN THE BROOK. A THIRD VEIN APPEARS TO BE TRUNCATED BY THE MAIN VEIN. GALENA, SPHALERITE AND CHALCOPYRITE CAN BE SEEN IN THE VEIN. THE MINERALIZATION IS VERY IMPRESSIVE.

SAMPLES

K07-18(02) GRAB SAMPLE OF FIRST QUARTZ VEIN IN RED GRANITIC ROCK , MINOR DISSEMINATED CHALCOPYRITE IN THE VEIN.

K07-18(03) GRAB SAMPLE OF THE SECOND QUARTZ VEIN. WHITE QUARTZ VEIN IN RED GRANITIC ROCK. MINOR FLECKS OF DISSEMINATED CHALCOPYRITE.

K07-18(04) SELECT VEIN MATERIAL MAIN SHOWING

K07-18(05) HOST ROCKS AT THE MAIN OCCURRENCE

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\07 ST ANNS , 1:50,000

GSC MAP 10, GEOLOGY, FLETCHER, ONE INCH TO ONE MILE, 1884

GSC OF 1594, GEOLOGY, S.M.BARR, R.P.RAESIDE, R.A. JAMIESON, 1:50,000, 1987 (GEOLOGY ONLY NO LOCATION)

BIBLIOGRAPHY :

DOUGLAS, G.V. AND C.O. CAMPBELL : BARASOIS AND INDIAN BROOK AREA; NSDME ANUAL REPORT 1946, P229-231

FLETCHER,H: GSC ANNUAL REPORT 1876-77, P452 AND GSC ANNUAL REPORT 1882-84, PART H , P14,94

NSDME ANNUAL REPORT 1937, P150

NSDME AR 11K\07A 45-Q-19(00) SILVER, TARBOT

NSDME AR 11K\07A 21-Q-15(02) GOLD, ST ANNS

NSDME AR 84-067 GOLD, MUSKRAT BROOK

MACDONALD, A.S. AND S.M. BARR, GEOLOGY AND AGE OF POLYMETALLIC MINERAL OCCURRENCES IN VOLCANIC AND GRANITOID ROCKS ST ANNS AREA, CAPE BRETON ISLAND, GSC REPORT 85-1B, P117-124

REMARKS :

A GOLD STREAM SEDIMENT ANOMALY OCCURS ON THE STREAM (AR 84-067)

VERIFICATION :

THE OCCURREENCE HAS BEEN CONFIRMED AND SAMPLED BY NSDME STAFF IN 1937 AND 1946.

ASSAY DATA

FLETCHER 1876 "AN ANALYSIS, MADE BY MR GISBORNE AT THE BOSTON SCHOOL OF TECHNOLOGY, OF A SAMPLE OF 900LBS OF ORE FROM THIS VEIN, YIELDED AT THE RATE OF 501 LBS OF CONCENTRATED ORE TO THE TON, OR 155LBS OF INGOT LEAD, AND 2.95 OZ OF SILVER."

MINES REPORT 1937: A SAMPLE WAS ANALYSED AT NOVA SCOTIA TECHNICAL COLLEGE. IT GAVE $3.50 PER TON GOLD AND $0.25 PER TON SILVER.

NSDME 1990 RESULTS
BONDAR-CLEGG AU+33

SAMPLE NUMBER		K07-18(02)	K07-18(04)	K07-18(05)
ELEMENT	UNIT			
NA	PCT	1.60	<0.05	0.09
SC	PPM	15.0	14.0	26.0
CR	PPM	680	400	170
FE	PCT	1.2	3.3	3.5
CO	PPM	<10	23	16
NI	PPM	68	30	<20
ZN	PPM	<200	26000	300
AS	PPM	5	8	5
SE	PPM	<10	<10	<10

BR	PPM	<1	1	<1
RB	PPM	110	81	140
ZR	PPM	<500	<500	<500
MO	PPM	13	3	2
AG	PPM	<5	10	<5
CD	PPM	<10	530	<10
SN	PPM	<200	<200	<200
SB	PPM	5.6	6.3	7.1
TE	PPM	<20	<20	<20
CS	PPM	3	3	4
BA	PPM	1300	2200	240
LA	PPM	5	12	21
CE	PPM	<10	32	63
SM	PPM	1.9	2.9	5.7
EU	PPM	<2	<2	<2
TB	PPM	<1	<1	<1
YB	PPM	<5	<5	<5
LU	PPM	<0.5	<0.5	<0.5
HF	PPM	2	3	3
TA	PPM	<1	<1	<1
W	PPM	4	15	12
IR	PPB	<100	<100	<100
AU	PPB	48	100	<5
TH	PPM	0.8	4.9	8.5
U	PPM	0.9	1.3	1.7
WT	g	11.89	12.07	12.32

BONDAR CLEGG FIRE ASSAY

SAMPLE		K07-18(04)
ELEMENT	UNITS	
AU	PPB	122
AG	OPT	0.18

BONDAR-CLEGG ATOMIC ABSORPTION

SAMPLE NUMBER	ELEMENT UNITS	CU PPM	ZN PPM	AG PPM	PB PPM	BI PPM
K07-18(04)		14120	>20000	4.4	12680	<1

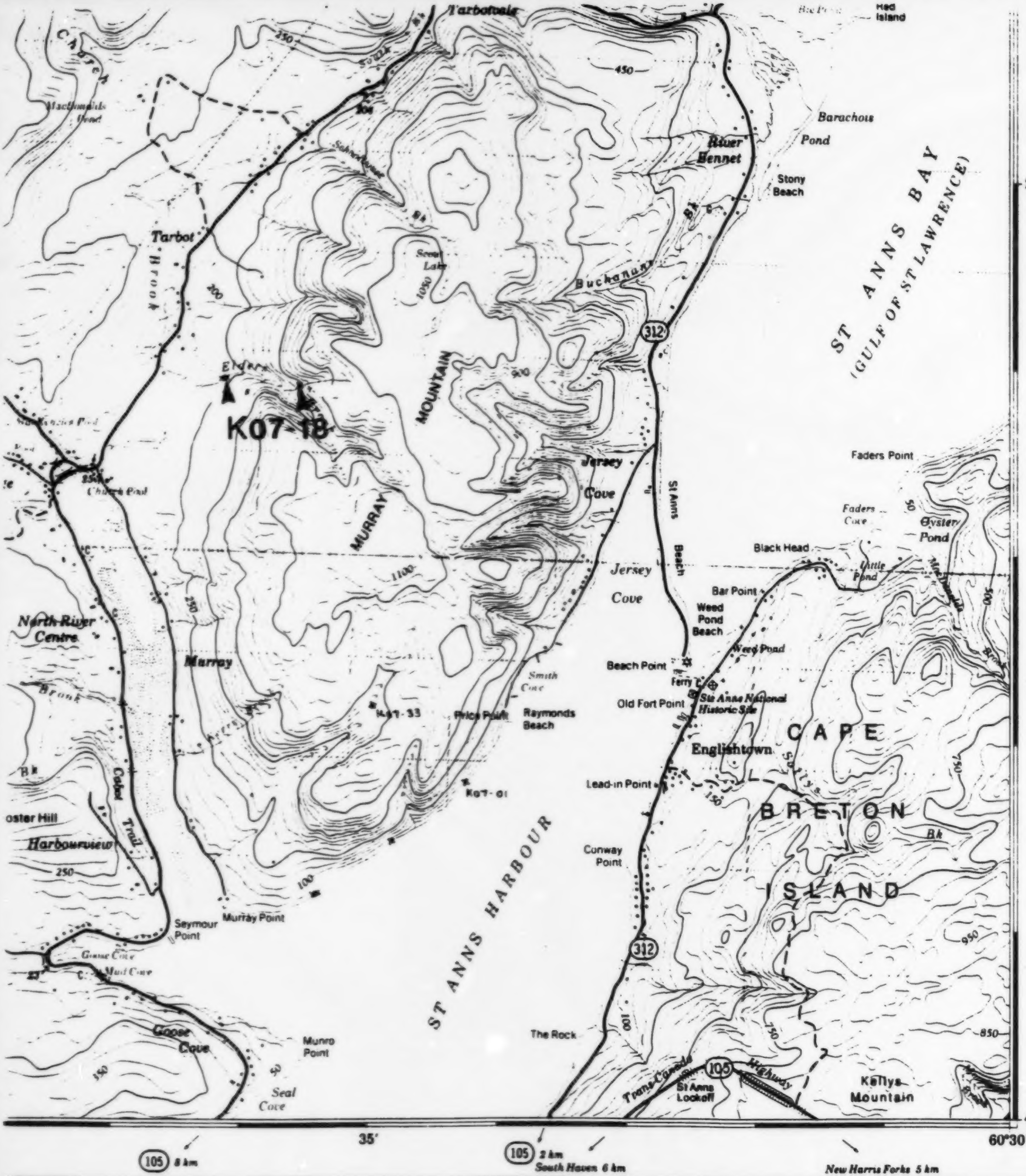
SURVEYS PERFORMED

GEOLOGY, STREAM GEOCHEMICAL

COMPILED BY :GARTH DEMONT, MAY, 1989

UPDATED BY :GARTH DEMONT, JAN,1991

FIELD CHECKED BY :G.DEMONT AND C.WILLIAMS, JULY,1990


Tarbotvale
Red Island
Macdonalds Pond
450
Barachois Pond
River Bennet
Stony Beach
Tarbot
Brook
Scout Lake
1050
Buchanans
ST ANNS BAY
(GULF OF ST LAWRENCE)
312
Elders
K07-18
MOUNTAIN
MURRAY
Jersey Cove
St Anns Beach
Faders Point
Faders Cove
Oyster Pond
Black Head
Little Pond
1100
Jersey Cove
Bar Point
Weed Pond Beach
North River Centre
Weed Pond
Beach Point
Murray
Smith Cove
Ferry
Old Fort Point
Ste Anne National Historic Site
Price Point
Raymonds Beach
CAPE
Englishtown
Lead-in Point
K07-01
BRETON
Harbourview
Conway Point
ISLAND
ST ANNS HARBOUR
Seymour Point
Murray Point
Goose Cove
Mud Cove
Goose Cove
Munro Point
The Rock
Seal Cove
Trans Canada Highway
105
St Anns Lookoff
Kellys Mountain
35'
60°30'
105 8 km
105 2 km
South Haven 6 km
New Harris Forks 5 km

eu et l'altitude exacte des
géodésiques. Direction des

ES ALTITUDES

0 300 Mètres

900 1000 Pieds

0 PIEDS

américain, 1927
cateur

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRA
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOU
Mise à jour à l'aide de photographies aériennes prises en 1978. Vérifica
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Ministère de l'Énergie, des Mines et des Ressources.

OCCURRENCE NAME : BARACHOIS RIVER

LOCATION

COUNTY : VICTORIA **CLAIM MAP :**11K\07A **TRACT :** 101 **CLAIM :** N

NORTHING : 5138250 **EASTING :** 684400 **ZONE :** 20

DESCRIPTIVE LOCATION : THE OCCURRENCE IS REACHED BY TAKING THE WEST TARBOT ROAD OFF THE CABOT TRAIL. TRAVEL UP THIS ROAD FOR APPROXIMATELY 1.7KM.(KEEP TO THE LEFT AT THE JUNCTION AT APPROXIMATELY 0.7KM) THE ROAD ENDS AT THIS POINT BESIDE A SMALL COTTAGE. A FOOTPATH LEADS FROM THE END OF THE ROAD. DO NOT TAKE THIS PATH. ONE BRANCH OF THE PATH LEADS TO A COTTAGE AND THE OTHER BRANCH TURNS IN A SOUTHERLY DIRECTION AWAY FROM THE RIVER. WE LEFT THE END OF THE ROAD ON A BEARING OF 060 DEG T. WE HIT THE BARACHOIS RIVER AT A DISTANCE OF 310M FROM THE ROAD. WE THEN WALKED WEST ALONG THE SOUTH BANK OF THE RIVER FOR 1687M. AT THIS POINT WE HIT MORRISON BROOK. THE BROOK ENTERS THE RIVER BEHIND A SMALL ISLAND. WE CROSSED THE RIVER AT THIS POINT. FROM THE END OF THE ISLAND WE WALKED WEST ANOTHER 150M ALONG THE NORTH BANK OF THE BARASOIS RIVER. AT THIS POINT HEAD NORTHEAST AWAY FROM THE RIVER. THE SHAFT IS LOCATED 220M AWAY FROM THE RIVER. THE SMALL BROOK ON WHICH THE SHAFT IS LOCATED CAN NOT BE SEEN ENTERING THE RIVER. THE BROOK BRAIDS IN TO MANY BRANCHES IN A HARDWWOD STAND AND DISAPPEARS BEFORE ENTERING THE RIVER. THE RAVINE IS EASILY LOCATED ONCE YOU PASS THROUGH THE HARDWOOD STAND. THE SHAFT IS LOCATED ON THE NORTH WEST SIDE THE SMALL BROOK IN A NARROW RAVINE.

SUMMARY DESCRIPTION

MINERALIZATION : GOLD, PYRITE, CHALCOPYRITE AND GALENA
COMMODITY : AU, FE, CU AND PB

STRATIGRAPHIC UNIT : INDIAN BROOK GRANODIORITE **AGE :** HADRYNIAN

HOST ROCK : GRANODIORITE AND QUARTZITE

STATUS : THE MINERALIZATION WAS REPORTED IN OUTCROP AND IN A SHORT SHAFT (1946).

GEOLOGICAL ENVIRONMENT :

BARR ET AL (REF 7) DESCRIBE THE OCCURRENCE AS BEING FOUND IN THE INDIAN BROOK GRANODIORITE WHICH IS PART OF THE ST.ANNS HARBOUR WRECK COVE SUITE. THEY DESCRIBE THE SUITE AS ; " THE EASTERN PART OF THE MAP AREA IS DIVIDED INTO BIRCH PLAIN GRANITE, INDIAN BROOK GRANODIORITE, ST ANNS LEUCOGRANITE, AND MURRAY MOUNTAIN QUARTZ MONZODIORITE. THE INTRUSIVE SEQUENCE IS BASED PRIMARILY ON OBSERVATIONS OF GRANITOID XENOLITHIC MATERIAL. THE LATE HADRYNIAN TO EARLY CAMBRIAN AGE IS BASED ON AN RB-SR WHOLE ROCK ISOCHRON OF 517 +- 20 MA FOR THE ST ANNS LEUCOGRANITE REPORTED BY CORMIER(1979) THE ISOCHRON ALSO INCLUDED ONE SAMPLE OF THE INDIAN BROOK GRANODIORITE, WHICH IS PRESUMABLY SIMILAR IN AGE BUT SOMEWHAT OLDER. NEAR ITS WESTERN MARGIN THE INDIAN BROOK GRANODIORITE CONTAINS ABUNDANT XENOLITHS OF THE ADJACENT BARACHOIS RIVER GNEISS, AN INDICATION OF A LATE HADRYNIAN OR OLDER AGE FOR THE LATTER UNIT. WITHIN THE LARGE MAP UNITS OF THE ST ANNS HARBOUR WRECK COVE BELT, SOME VARIATION IN PETROLOGIC FEATURES IS APPARENT, AND MORE DETAILED STUDIES OF SAMPLES MAY RESULT IN FURTHER SUBDIVISION OF THE UNITS."

BARR ET AL (REF 4) : " (INDIAN BROOK GRANODIORITE) THIS UNIT IS COMPOSED OF BIOTITE-HORNBLENDE GRANODIORITE WHICH IS GRADATIONAL TO GRANITE . TOWARDS ITS WESTERN MARGIN, WHERE IT HAS INTRUDED A BELT OF GNEISSIC ROCKS, IT CONTAINS INCREASINGLY ABUNDANT STRONGLY ALIGNED XENOLITHS OF THE GNEISSES."

REFERENCE DESCRIPTION :

MESSERVEY 1939 (01) ;" THIS PROSPECT IS APPROXIMATELY 750 FEET NORTH OF BARACHOIS RIVER AT AN ELEVATION OF ABOUT 100 FEET ABOVE THE RIVER BED. THE DEPOSIT CONSISTS OF A QUARTZ VEIN OCCURRING IN A FISSURE WHICH IS LENS SHAPED. THE VEIN STRIKES NORTH AND SOUTH MAGNETIC AND HAS A DIP OF ABOUT 80 DEG TO THE EAST. THE POINT WHERE IT WAS DISCOVERED IS IN THE BED OF A VERY SMALL BROOK FLOWING DOWN THE MOUNTAIN SIDE THROUGH A NARROW STEEP RAVINE. THE RAVINE HAS A GENERAL DIRECTION OF SOUTH 35 DEG WEST. ON THE WEST SIDE OF THE BROOK ABOUT 15 FEET NORTH OF THE POINT WHERE THE VEIN APPEARS IN THE BROOK, A SHAFT WAS SUNK TO A DEPTH OF 25 FEET ACCORDING TO STATEMENTS BY MR MCINTOSH. THIS COULD ONLY BE UNWATERED TO A DEPTH OF 15 FEET AS THERE WAS CONSIDERABLE DEBRIS IN THE BOTTOM OF THE SHAFT. THE VEIN IN THE NORTH SIDE OF THE SHAFT WAS 28 INCHES WIDE AT 15 FEET IN DEPTH AND IN THE SOUTH SIDE OF THE SHAFT 21 INCHES IN WIDTH AT 10 FEET IN DEPTH. THE WIDTH OF THE VEIN AT THE POINT WHERE IT WAS CROSSED BY THE BROOK WAS 12 INCHES. EXCEPT IN THE

BROOK IN THE VICINITY OF THE SHAFT AND IN THE NARROW RAVINE ABOVE THAT POINT UP THE SIDE OF THE MOUNTAIN THERE WERE PRACTICALLY NO OUTCROPS. HOWEVER, AT A POINT 75 FEET NORTH OF THE SHAFT UP THE MOUNTAIN AND IN THE SAME GENERAL STRIKE AS THE VEIN I FOUND CONSIDERABLE QUARTZ FLOAT ON THE SURFACE. THE PRINCIPAL ROCK FOUND IN THAT AREA WAS GRANITE-PORPHRY, BUT ON THE EAST SIDE OR THE HANGINGWALL OF THE VEIN THERE WAS A NARROW BAND OF DARK GREENISH COLOURED GRANULAR QUARTZITE WHICH CONTAINS SOME SMALL CRYSTALS OF IRON PYRITES. THE REDDISH COLORED GRANITE WHICH PREDOMINATED ON THE EAST SIDE OF THE VEIN AND ALSO UP THE BROOK WAS DRILLED AND BLASTED AND UPON EXAMINATION SHOWED A FEW SMALL CRYSTALS OF IRON PYRITES DISSEMINATED THROUGH IT. I THEREFORE SAMPLED THE WALL ROCKS AS WELL AS THE VEIN ITSELF.

AS NO FREE GOLD COULD BE DISCERNED IN THE QUARTZ BY MEANS OF A MAGNIFYING GLASS, I SELECTED FROM THE DUMP PIECES OF QUARTZ CONTAINING LARGE PERCENTAGES OF PYRITE IN ORDER TO DETERMINE WHETHER THE GOLD WAS ASSOCIATED WITH THE QUARTZ OR THE PYRITE. THE RESULTS OF THE ROUGH CONCENTRATION ON THIS SAMPLE SHOW THAT THE GOLD IS APPARENTLY ASSOCIATED WITH THE PYRITE. THESE RETURNS CERTAINLY WARRANT FURTHER EXPLORATIONS UPON THE PROPERTY BY MR MCINTOSH AND HIS ASSOCIATES.

ON SEPTEMBER 27TH I CALLED AT TARBOTVALE, WHERE JOSEPH MCINTOSH AND DOUGLAS BARRET HAD THE SHAFT CLEANED OUT TO A DEPTH OF 18 FEET. THE SHAFT HAD A SLIGHT INCLINATION OUT OF VERTICAL TO THE NORTH AND ON THE NORTH SIDE I WAS ABLE TO PUSH A POLE DOWN THROUGH THE LOOSE MUCK AN ADDITIONAL 10 FEET. THIS WOULD MAKE A TOTAL DEPTH OF 28 FEET IN DEPTH.

EXCEPT FOR THE INCREASE IN WIDTH THE VEIN SHOWED THE SAME GENERAL APPEARENCE AS HIGHER IN THE SHAFT. I ALSO CARRIED OUT RECONNAISANCE SOUTH OF THE SHAFT DOWN THE SLOPE AND FOUND EVIDENCE OF QUARTZ FLOAT ALONG THE SAME GENERAL STRIKE. I ALSO RECONNOITERED THE TERRITORY UP THE SIDE OF THE MOUNTAIN NORTH OF THE SHAFT AND FOUND EVIDENCE OF QUARTZ FLOAT IN THE SURFACE ABOUT 300 FEET ABOVE THE SHAFT.

THE IMPRESSION GIVEN DURING CONVERSATIONS DURING MY LAST VISIT WAS THAT PART OF THE SINKING OF THE SHAFT WAS PERFORMED BY THE PRESENT LICENSEES BUT I FOUND OUT THIS TRIP THAT THE SINKING OF THE SHAFT WAS ALL PERFORMED BY MR. ROBERTSON, HARNESS MAKER OF BADDECK ABOUT THE YEAR 1910."

DOUGLAS AND CAMPBELL 1946 ;" THE VEIN OUTCROPS IN A SMALL RAVINE ON THE EAST BANK OF THE BARACHOIS RIVER, 1,000 FEET ABOVE THE JUNCTION OF MORRISON BROOK AND THE BARACHOIS. IT STRIKES 179 DEG MAGNETIC AND DIPS EAST AT 80DEG AT THE SURFACE AND 60 DEG AT THE BOTTOM OF THE SMALL PROSPECT SHAFT SUNK ON THE

VEIN. THIS SHAFT IS 32 FEET DEEP AND DIPS NORTH AT 65 DEG. THE VEIN FOLLOWS A FISSURE AND ITS WIDTH IS INCREASING WITH DEPTH. AT THE BOTTOM OF THE SHAFT THERE IS A WIDTH OF 28 INCHES OF QUARTZ AND CARBONATE. AT 17 FEET THE VEIN CONSISTS OF 8 INCHES OF SLICKENSIDED CARBONATE AND QUARTZ AND 11 INCHES OF QUARTZ SEPERATED BY AN 11 INCH HORSE OF REPLACED GRANITE. THE GRANITE IS OF THE RED ORTHOCLASSE VARIETY. A 17 INCH DYKE, STRIKING 50DEG MAGNETIC AND DIPPING NORTH WEST AT 55 DEG IS CUT OFF BY THE VEIN. IN THE FRACTURED ZONE THE GRANITE HAS BEEN SLIGHTLY MINERALIZED AND SHOWS SMALL SPECKS OF CHALCOPYRITE. TWENTY FIVE FEET NORTH OF THE SHAFT THE VEIN SPLITS IN TO TWO PARTS, 1 INCH AND 4INCHES WIDE. THE SPLITTING OF THE VEIN IN TO TWO PARTS IS SEEN IN THE FACE OF THE SHAFT, THE VEINS APPEARING TO FOLLOW RADIATING FRACTURES IN THE GRANITE. FIFTEEN FEET SOUTH OF THE SHAFT, ACROSS THE BROOK, THE VEIN AS SHOWN IN THE BANK IS IN TWO SMALL STRINGERS, EACH 1 TO 2 INCHES WIDE. AT THIS POINT IS A FAULT, STRIKING 54 DEG MAGNETIC AND DIPPING SOUTH AT 45 DEG. THIS FAULT DISPLACES THE VEIN 4 FEET TO THE WEST. THE TOTAL EXPOSED STRIKE LENGTH OF THE VEIN IS 33 FEET."

BRUBEC MINES 1968 (REF 5) ; " A GOLD QUARTZ VEIN AND OLD SHAFT 32 FEET DEEP ARE AT THE LOWER END OF A STEEP ROCKY GULCH THAT HAS BEEN ERODED ALONG A VERTICAL CALCITE EPIDOTE VEIN THAT EXTENDS UPHILL NORTHWARD FOR AT LEAST 330 FEET. THE CALCITE VEIN WAS STUDIED IN SOME DETAIL: THE QUARTZ VEIN LESS SO.

FOUR ROCK TYPES ARE PRESENT AND APPEAR IN THE WALLS OF THE RAVINE, DIFFERENTLY DISPOSED IN DIFFERENT SECTIONS OF IT: AMPHIBOLITE, IN PLACES INTERLAYERED WITH GRANITE (MIGMATITE); DARK GRANITE, OFTEN HEAVLIY CHLORITIC; LEUCOCRATIC RED GRANITE; AND DARK GREY BASIC DYKE ROCK. THE CALCITE SHEAR CUTS THROUGH AND BETWEEN MASSES OF ALL THESE ROCKS, THE ALTERED ZONE ON EACH SIDE EXTENDING IN TO EACH IN TURN.

THE VEIN ITSELF CONTAINS CALCITE, QUARTZ, EPIDOTE, CHLORITE, GILBERTITE(?), AND HEMATITE WITH MINOR SPECKS OF AMBER SPHALERITE AND (RARELY) GALENA. THE THICKNESS OF THE VEIN IS FROM 0 TO PERHAPS 4 INCHES AND THAT OF THE ALTERED ZONE FROM 2 INCHES TO A FOOT OR MORE.

TRACED FOR 330 FEET DOWNHILL, IT IS OFFSET, AND FINALLY TRUNCATED BY A QUARTZ FILLED FAULT THAT TRANSECTS THE NORTH SOUTH RAVINE AND CALCITE VEIN AT THEIR LOWER END. THE LENGTH AND PERSISTENCE OF THE CALCITE VEIN AND ITS ALTERED ZONES, THE PRESENCE OF SPHALERITE, GALENA, CHALCOPYRITE AND GOLD MAKE THIS OCCURRENCE OF SOME INTEREST.

THE STRENGTH AND PERSISTANCE OF THIS FRACTURE, ITS OCCURRENCE WITH TRACE-MINERALIZATION IN COPPER, LEAD, ZINC AND GOLD , COUPLED WITH THE

OCCURRENCE A THIRD OF A MILE TO THE SOUTHEAST OF RUST IN THE NEXT STREAM VALLEY, MAKE THIS AN AREA OF INTEREST."

FIELD DESCRIPTION :

THE SHAFT IS LOCATED ON THE NORTH SIDE OF THE BROOK IN A NARROW RAVINE. THE SHAFT IS FILLED WITH DEBRIS WHICH HAS SLUMPED IN FROM THE HILLSIDE ABOVE. (PHOTO 1-3) THE VEIN CAN NOT BE SEEN IN THE SHAFT BUT IT IS VISIBLE IN THE CLIFF ABOVE THE SHAFT. THE AREA OF THE VEIN IS READILY SEEN AS A RED STAINED WEATHERED AREA.(PHOTO 5 AND 6) THE VEIN OCCURS IN A SHEAR ZONE. A 5CM THICK GOUDGE ZONE IS FOUND ON THE UPPER FACE OF THE VEIN. MINOR AMOUNTS OF PYRITE AND CHALCOPYRITE CAN BE SEEN IN THE VEIN. THE QUARTZ VEIN IS APPROXIMATELY 10CM THICK IN THE CLIFF ABOVE THE SHAFT. A QUARTZ CARBONATE VEIN IS ALSO VISIBLE IN THE BROOK BELOW THE SHAFT. (PHOTO 4). THIS VEIN CONTAINS MORE SULPHIDE THAN THE VEIN ABOVE THE SHAFT. A RED SUB-METTALIC MINERAL IS ALSO ASSOCIATED WITH THE VEIN.(RHODONITE?)

SAMPLES

K07-30(01) GRAB SAMPLE OF WHITE TO SEMI TRANSLUCENT QUARTZ, MINOR AMOUNTS OF CHALCOPYRITE AND PYRITE

K07-30(02) HOST ROCKS

A) REDDISH MEDIUM GRAINED GRANITE ? 1-2% DISSEMINATED HEMATITE, MINOR PYRITE, SOME GREENISH CHLORITE OR EPIDOTE ALTERATION SAMPLE FROM ABOVE THE VEIN IN THE CLIFF

B) BROWNISH WHITE-SHEARED GRANITE, 10-15% SILICEOUS GREENISH MINERAL (EPIDOTE?) SMALL QUARTZ EYES, UP TO 1% DISSEMINATED HEMATITE, SAMPLE TAKEN BELOW THE VEIN IN THE CLIFF

C) GREENISH MASSIVE QUARTZITE OR MAFIC ROCK? TAKEN FROM THE NORTH FACE OF THE SHAFT

K07-30 (03) QUARTZ -CALCITE VEIN IN THE BROOK BELOW THE SHAFT - CONTAINS A PINKISH RED MINERAL (RHODONITE) IN THE CALCITE RICH PORTION OF THE VEIN. THE QUARTZ IS LATER THAN THE CALCITE VEIN. AN UNIDENTIFIED SULPHIDE IS FOUND DISSEMINATED IN THE CALCITE VEIN. PYRITE WITH MINOR CHALCOPYRITE FOUND IN THE CALCITE AND QUARTZ.

K07-30(04) FLOAT FOUND 62M SOUTH OF THE SHAFT IN THE BED OF THE BROOK. GREENISH QUARTZITIC ROCK? CUT BY WHITE QUARTZ VEINLETS CONTAINING AN UNIDENTIFIED PURPLE MINERAL 1-2% DISSEMINATED PYRITE AND MINOR CHALCOPYRITE

REFERENCE INFORMATION

MAP REFERENCES :
NTS 11K\07 ST ANNS, 1:50,000

GSC OF 1594 GEOLOGY, S.M. BARR, R.P. RAESIDE AND R.A. JAMIESON, 1:50,000, 1987

BIBLIOGRAPHY :

(1) NSDME AR 11K\07A 21-Q-19(00) GOLD, TARBOTVALE

(2)DOUGLAS, G.V. AND C.O. CAMPBELL, BARASOIS AND INDIAN BROOK AREA, NSDME ANNUAL REPORT 1946, P227-228

(3)NSDME AR 11K\07A 45-Q-19(00) SILVER, TARBOT

(4)MACDONALD, A.S. AND S.M. BARR : GEOLOGY AND AGE OF POLYMETALLIC MINERAL OCCURRENCES IN VOLCANIC AND GRANITOID ROCK, ST ANNS AREA, CAPE BRETON ISLAND, GSC PAPER 85-1B, P117-124, 1985

(5) NSDME AR 11K\07A 13-Q-19 (01) COPPER, TARBOTVALE

(6) MESSERVEY,J.P, NSDME ANNUAL REPORT 1939, P89-92

(7) BARR,S.M, R.P. RAESIDE AND A.S. MACDONALD: GEOLOGY OF THE SOUTHEASTERN CAPE BRETON HIGHLANDS NOVA SCOTIA, GSC PAPER 85-1B, P103-109, 1985

REMARKS :

THE VEIN IS APPARENTLY WIDENING WITH DEPTH AND THE BEST VALUES OCCUR AT DEPTH IN THE SHAFT SO THE POTENTIAL LOOKS PROMISING.ALTHOUGH A FAIR AMOUNT OF EXPLORATION HAS BEEN RECORDED IN THIS AREA SINCE 1946, NO WORK HAS BEEN RECORDED ON THE OCCURRENCE ITSELF. THERE APPEARS TO BE TWO VEIN SYSTEMS, THE QUARTZ VEIN VISIBLE IN THE CLIFF ABOVE THE ADIT AND THE QUARTZ CALCITE VEIN IN THE BROOK BELOW SHAFT AND IN FLOAT. AT THE TIME OF THE FIELD CHECK WE FOCUSSED ON THE QUARTZ VEIN AS THAT IS THE VEIN DESCRIBED IN THE LITERATURE. IF ONE LOOKS AT THE GEOCHEMICAL RESULTS OF SAMPLES TAKEN IN THE FIELD CHECK, WE SHOULD HAVE BEEN LOOKING CLOSER AT THE QUARTZ CALCITE VEINS.

VERIFICATION :

THE OCCURRENCE WAS LOCATED AND SAMPLED IN THE FIELD BY NSDME PERSONNAL IN 1939 AND 1946.THE OCCURRENCE WAS LOCATED AND SAMPLED BY NSDME STAFF AGAIN IN 1990.

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  ASSAY DATA
     DOUGLAS 1946 (REF 2)
SAMPLE        WIDTH         LOCATION             OZ\TON  AU
1           24INCHES        17.5 FOOT LEVEL      0.04
2           11 "            13 FOOT LEVEL        0.04
3           5  "            13 "       "         0.04
4           9  "            13 "       "         0.04
5           11 "            13 "       "         0.04
6           8  "            13 "       "         0.05
7           4 FEET          13 "       "         0.5

MESSERVEY 1939 (REP 01)
SAMPLE           DESCRIPTION                              OZ\TON AU
1            PICKED SAMPLE CONTAINING LARGE PORTIONS
             OF PYRITE, TO BE CONCENTRATED - 12.5 LBS  1.9
             CONCENTRATE FROM ABOVE                    5.28
             TAILINGS FROM ABOVE                       0.72

2            HANGING WALL ROCK (BROWN COLORED GRANITE  0.01
             PORPHRY TAKEN ACROSS 4 FEET)

3            HANGING WALL (GREEENISH QUARTZITE) ADJACENT  0.01
             TO VEIN IN THE BROOK SOUTH OF THE SHAFT

4             QUARTZ FLOAT TAKEN FROM SURFACE 75       0.01
              FEET ABOVE THE SHAFT

5             QUARTZ VEIN IN THE BROOK BELOW SHAFT     0.25
              12 INCHES WIDE

6             QUARTZ VEIN NORTH SIDE OF SHAFT AT       0.39
              DEPTH 12 FEET, 28 INCHES WIDE

7             SOUTH SIDE OF THE SHAFT AT 10 FEET       0.06
              DEPTH, 21 INCHES WIDE

8             HANGING WALL (GREENISH QUARTZITE) NORTH   NIL
              SIDE AT THE TOP OF THE SHAFT

9             NORTH SIDE, DEPTH 14 FEET ACROSS A WIDTH  0.06
              OF 44 INCHES

10            NORTH SIDE DEPTH 16 FEET ACROSS 48 INCHES  0.01

11            SOUTH SIDE FROM DEPTH 16 FEET ACROSS 30    0.09
              INCHES

NSDME 1990
BONDAR CLEGG AU+33
SAMPLE NUMBER    K07-30(01)    K07-30(03)   K07-30(04)
ELEMENT  UNITS
NA       PCT       <0.05         0.07          0.06
SC       PPM        1.3          5.2           13.0
CR       PPM       470           260           160
FE       PCT        0.7          4.2           5.6
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CO	PPM	<10	<10	17
NI	PPM	<20	<20	<20
ZN	PPM	<200	<200	<200
AS	PPM	3	8	4
SE	PPM	<10	<10	<10
BR	PPM	<1	11	3
RB	PPM	19	13	43
ZR	PPM	<500	<500	<500
MO	PPM	<2	<2	<2
AG	PPM	<5	<5	<5
CD	PPM	<10	<10	<10
SN	PPM	<200	<200	<200
SB	PPM	0.6	4.0	1.0
TE	PPM	<20	<20	<20
CS	PPM	<1	<1	1
BA	PPM	<100	<100	170
LA	PPM	<5	<5	5
CE	PPM	<10	<10	<10
SM	PPM	0.6	2.7	3.4
EU	PPM	<2	<2	<2
TB	PPM	<1	<1	<1
YB	PPM	<5	<5	<5
LU	PPM	<0.5	0.5	<0.5
HF	PPM	<2	<2	<2
TA	PPM	<1	<1	<1
W	PPM	<2	8	22
IR	PPB	<100	<100	<100
AU	PPB	34	150	869
TH	PPM	<0.5	<0.5	<0.5
U	PPM	<0.5	<0.5	<0.5
WT	g	15.75	14.70	15.93

BONDAR CLEGG AU FIRE ASSAY

SAMPLE NUMBER	K07-30(01)	K07-30(03)	K07-30(04)
AU PPB	45	143	782

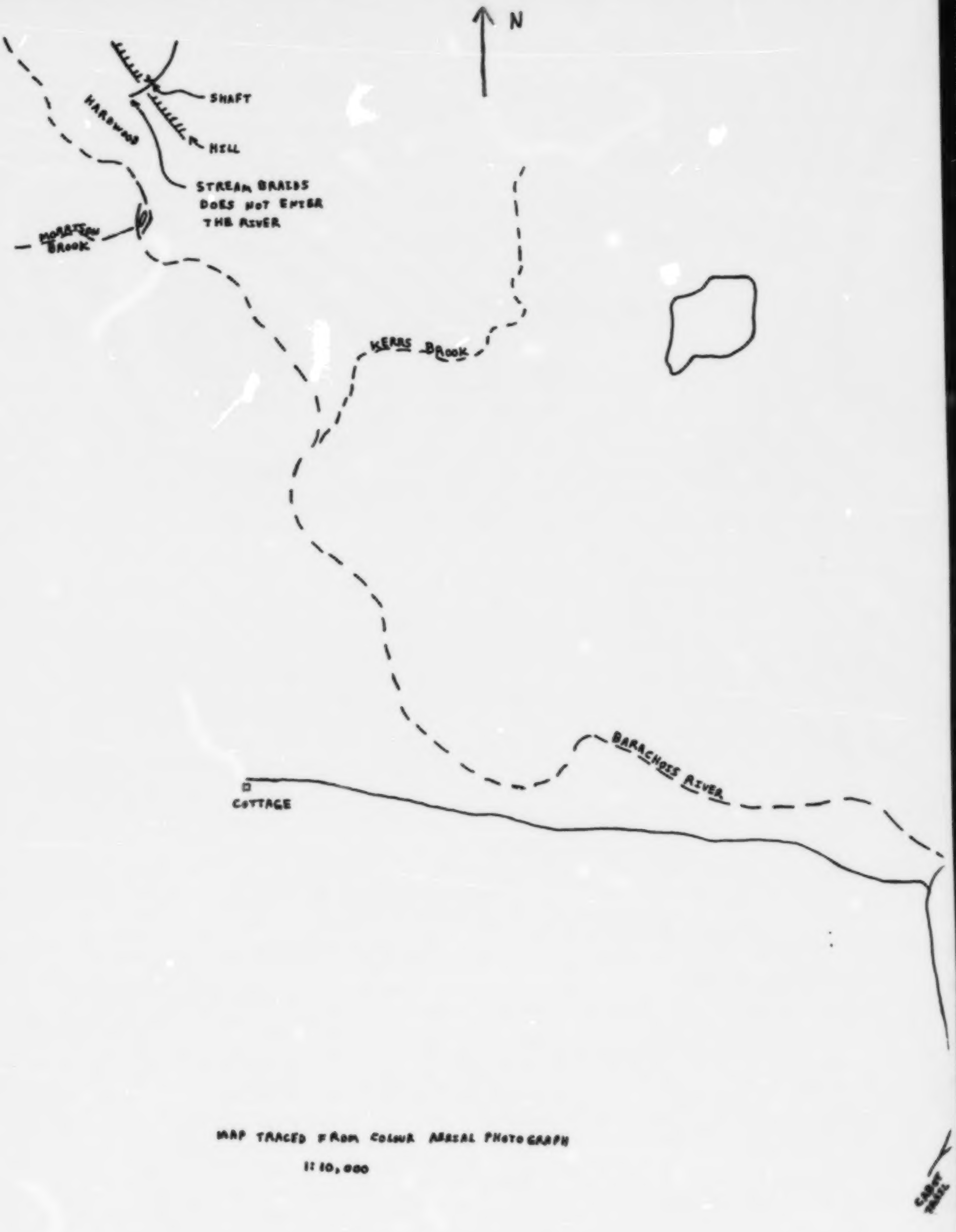
BONDAR CLEGG ATOMIC ABSORPTION

SAMPLE NUMBER		K07-30(01)	K07-30(03)	K07-30(04)
ELEMENT	UNITS			
CU	PPM	13	13	4
ZN	PPM	3	33	45
AG	PPM	0.3	0.2	0.5
PB	PPM	7	11	7
MN	PPM	72	4040	3740

SURVEYS PERFORMED

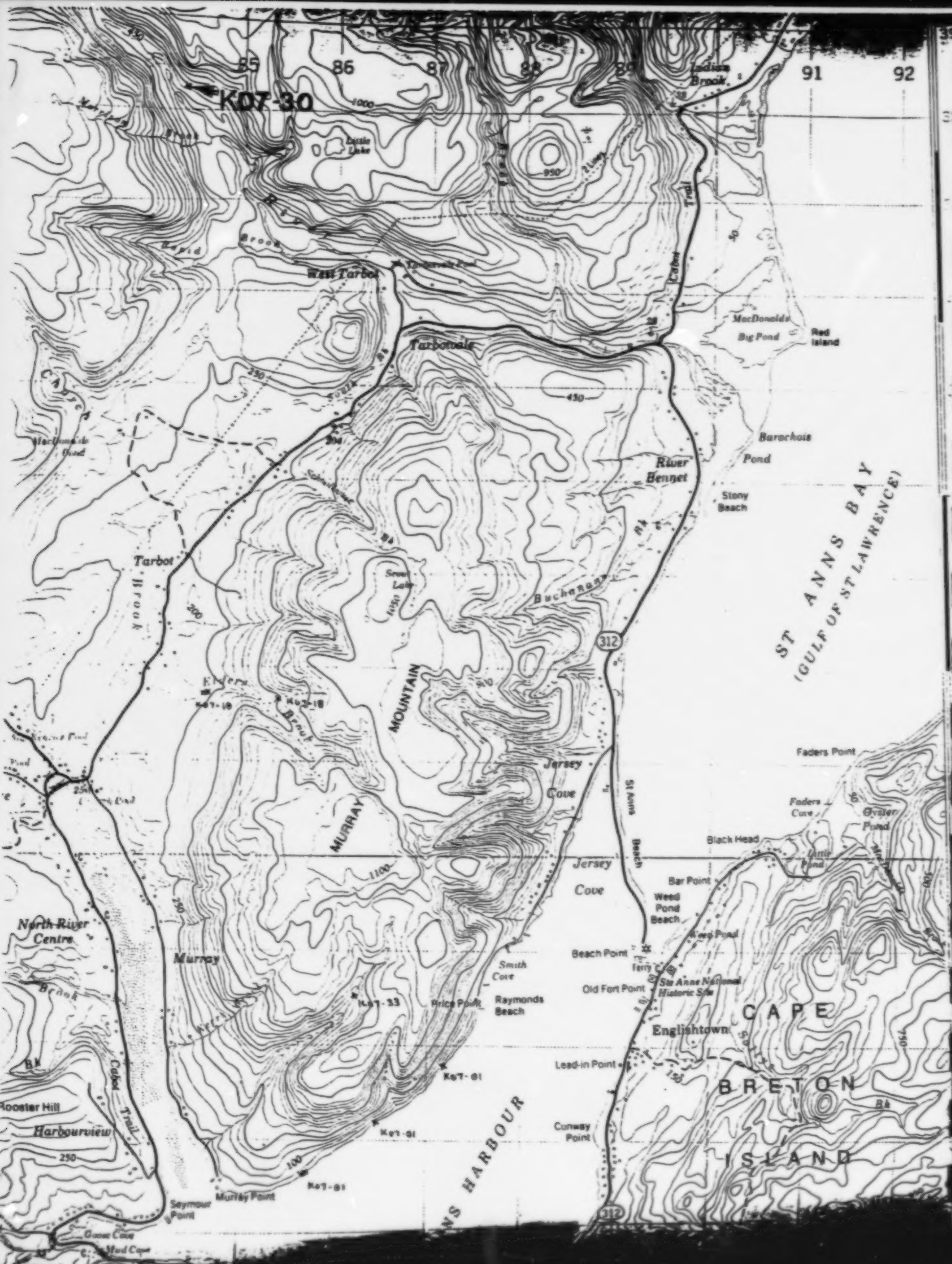
GEOLOGY, LITHOGEOCHEMICAL

COMPILED BY :GARTH DEMONT, MAY, 1989
UPDATED BY :GARTH DEMONT, OCT,1990
FIELD CHECKED BY :G.DEMONT, AND C.WILLIAMS, JULY,1990


N
SHAFT
HILL
HARDWOOD
STREAM BRAIDS
DOES NOT ENTER
THE RIVER
MORRISON
BROOK
KERRS BROOK
BARACHOIS RIVER
COTTAGE
CABOT
TRAIL

MAP TRACED FROM COLOUR AERIAL PHOTOGRAPH

1:10,000



85
86
87
88
89
91
92
K07-30
Little Lake
950
1000
Indian Brook
Cabot Trail
Rapid Brook
River
West Tarbot
Tarbotvale
MacDonalds Big Pond
Red Island
450
230
204
Barachois Pond
River Bennet
Stony Beach
Tarbot
Brook
Buchanans
Scout Lake
1050
312
ST ANNS BAY
(GULF OF ST LAWRENCE)
910
K07-18
K07-16
MURRAY
MOUNTAIN
Jersey Cove
Faders Point
Faders Cove
Oyster Pond
Black Head
Little Pond
1100
St Anns Beach
Bar Point
Weed Pond Beach
Weed Pond
North River Centre
Murray
Beach Point
Ferry
Old Fort Point
St Anne National Historic Site
Smith Cove
Raymonds Beach
Price Point
K07-33
Englishtown
CAPE
BRETON
ISLAND
Lead-in Point
K07-01
Rooster Hill
Harbourview
250
Cabot Trail
Conway Point
ST ANNS HARBOUR
100
Seymour Point
Murray Point
Goose Cove
Mud Cove
20'

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER :K07-33**

OCCURRENCE NAME : MURRAY BROOK

LOCATION

COUNTY : VICTORIA **CLAIM MAP :**11K\07A **TRACT :** 28 **CLAIM :** M

NORTHING : 5128540 **EASTING :** 686240 **ZONE :** 20

DESCRIPTIVE LOCATION : FROM THE CABOT TRAIL, TAKE THE MURRAY POINT ROAD AT THE CHURCH. TRAVEL DOWN THIS ROAD FOR 4KM. TAKE THE ROAD TO THE LEFT (NORTH) WHICH TRAVELS UP THE HILL. THE ROAD IS LOCATED JUST BEFORE THE BRIDGE OVER MURRAY BROOK. DRIVE ALONG THIS ROAD FOR 0.8KM, KEEPING TO THE RIGHT. THE ROAD ENDS AT THIS POINT IN A FIELD BELOW A COTTAGE. AT THIS POINT HEAD EAST TO THE BROOK. THE BROOK IS LOCATED 75M EAST OF THE EDGE OF THE FIELD. AT A DISTANCE OF 1630 METRES UPSTREAM FROM THIS POINT, AN IMPRESSIVE SULPHIDE VEIN CUTS ACROSS THE BROOK. OTHER MINOR VEINS ARE LOCATED FARTHER UPSTREAM.

SUMMARY DESCRIPTION

MINERALIZATION : CHALCOPYRITE, MOLYBDENITE AND PYRITE
COMMODITY : CU, MO AND FE

STRATIGRAPHIC UNIT : MURRAY BROOK GRANODIORITE **AGE :** CAMBRIAN

HOST ROCK : GRANODIORITE

STATUS : THE MINERALIZATION IS FOUND IN OUTCROP AND DRILL CORE.

GEOLOGICAL ENVIRONMENT :

BARR ET AL(1985) :" SULPHIDE SHOWINGS IN THE ST-ANNS AREA INCLUDE POLYMETALLIC QUARTZ-CALCITE VEINS AND BARREN PYRITIC OCCURRENCES IN BOTH GRANITOID AND OLDER VOLCANIC ROCKS. THE VOLCANIC ROCKS CONSIST OF INTERMEDIATE LITHIC-CRYSTAL TUFFS AND FLOWS OF CALC-ALKALIC AFFINITY WHICH ARE PROBABLY LATE HADRYNIAN IN AGE AS THEY ARE INTRUDED BY A LATE HADRYNIAN-CAMBRIAN GRANITOID SUITE INCLUDING GRANITE, GRANODIORITE, LEUCOGRANITE, AND QUARTZ MONZODIORITE. CU-MO-AU BEARING VEINS ARE HOSTED BY THE VOLCANIC ROCKS AND RARER CU-ZN-PB-AG VEINS BY THE VOLCANIC ROCKS, BUT BOTH VEIN TYPES EXHIBIT SIMILAR ORIENTATIONS AND MORPHOLOGICAL AND TEXTURAL FEATURES, SUGGESTING A COMMON ORIGIN.

PRICE POINT VOLCANIC ROCKS:

VOLCANIC ROCKS, HERIN REFERRED TO AS THE PRICE POINT UNIT, FLANK AND TRANSECT THE GRANITOID ROCKS OF MURRAY MOUNTAIN. ALTHOUGH MOST CONTACTS ARE FAULTS , INTRUSIVE CONTACTS ARE EXPOSED LOCALLY WITH INDIAN BROOK GRANODIORITE NEAR WHERE THE CABOT TRAIL CROSSES THE BARACHOIS RIVER AND WITH THE ST. ANNS LEUCOGRANITE NEAR PRICE POINT. A VARIETY OF GRANITOID DYKES OCCUR ALSO IN THE VOLCANIC ROCKS.

THE VOLCANIC ROCKS ARE ESSENTIALLY INTERMEDIATE IN BULK COMPOSITION AND CONSIST MAINLY OF CRYSTAL AND LIHIC CRYSTAL TUFFS TOGEATHER WITH LESS ABUNDANT ANDESITIC-DACITIC FLOWS. THE ONLY MAFIC ROCKS PRESENT APPEAR TO BE DYKES, OF UNCERTAIN AGE, BUT PERHAPS RELATED TO THE VOLCANIC PACKAGE. NO SEDIMENTARY ROCKS WERE OBSERVED IN THE SEQUENCE.

ALL OF THE VOLCANIC ROCKS ARE MODERATELY ALTERED AND GENERALLY CONSIST OF SAUSSURITIZED FELDSPAR, QUARTZ, CHLORITE, EPIDOTE, ACTINOLITE, CALCITE, SERICITE, AND OPAQUE MINERALS. ALTHOUGH SOME LOCALLY ARE CUT BY QUARTZ-CALCITE VEINS AND MINERALIZED WITH SULPHIDES, THE PERVASIVE ALTERATION IS CONSIDERED TO BE OF LOW GRADE METAMORPHIC ORIGIN. HOWEVER, NO SYSTEMATIC FOLIATION WAS RECOGNIZABLE IN THESE ROCKS.

GRANITOID ROCKS :

GRANITOID ROCKS OF THE AREA ARE DIVIDED INTO SIX MAIN UNITS, INTRUDED BY DYKES OF DIORITE, QUARTZ-FELDSPAR PORPHRY, AND APLITE. THE LARGEST UNIT IS THE INDAIN BROOK GRANODIORITE, COMPOSED OF BIOTITE-HORNBLENDE GRANODIORITE GRADATIONAL TO GRANITE, WHICH EXTENDS TO THE NORTH OF THE PRESENT MAP AREA. TOWARDS ITS WESTERN MARGIN, WHERE IT HAS

INTRUDED A BELT OF GNEISSIC ROCKS, IT CONTAINS INCREASINGLY ABUNDANT STRONGLY ALIGNED XENOLITHS OF THE GNEISSES.

TWO SMALL INTRUSIONS IN THE MURRAY MOUNTAIN AREA ARE CONSIDERED TO BE RELATED TO THE INDIAN BROOK GRANODIORITE. ALTHOUGH LESS MAFIC THAN MUCH OF THE GRANODIORITE, THE KERRS BROOK HORNBLENDE-BIOTITE GRANITE IS CONSIDERED TO BE A VARIANT OF THE INDIAN BROOK UNIT BECAUSE OF THE PRESENCE OF AMPHIBOLE, NOT A FEATURE OF THE BIRCH PLAIN GRANITE. THE MURRAY BROOK GRANODIORITE IS PETROGRAPHICALLY SIMILAR TO THE INDAIN BROOK UNIT BUT IS WIDELY AFFECTED BY ALTERATION, VEINING AND MINERALIZATION.

THE DISTINCTIVE PINK TO RED ST ANNS LEUCOGRANITE, WITH ASSOCIATED APLITE, OCCURS IN THREE SEPERATE BODIES, INTRUDING INDIAN BROOK GRANODIORITE, KERRS BROOK GRANITE, AND MURRAY BROOK GRANODIORITE. FARTHER TO THE NORTH AND EAST, THE CENTRAL PART OF THE MAP AREA IS OCCUPIED BY THE MURRAY MOUNTAIN QUARTZ MONZODIORITE, A NARROW BODY, ELONGATE NORTH SOUTH, OF INHOMOGENOUS FINE GRAINED PORPHYRITIC TO MEDIUM GRAINED SUBPORHYRITIC QUARTZ MONZODIORITE. THIS UNIT IS INFERRED TO BE THE YOUNGEST OF THE MAIN INTRUSIONS, AS IT APPARENTLY INTRUDED THE INDAIN BROOK GRANODIORITE, AND QUARTZ MONZODIORITE DYKES ARE ALSO PRESENT IN BOTH THE MURRAY BROOK GRANODIORITE AND THE ST ANNS LEUCOGRANITE."

THE ABOVE EXCERPTS ARE TAKEN FROM THE REPORT BY ALAN S. MACDONALD AND SANDRA M. BARR. (GSC PAPER 85-1B)

REFERENCE DESCRIPTION :

AR 25-Q-15(01) :" I CARRIED OUT SOME EXCAVATION WORK AND EXPOSED A VEIN OF IRON PYRITES 24 INCHES WIDE, WITH A GOOD FOOT AND HANGING WALL, WELL DEFINED. THE LEAD HAS A STRIKE IN A NORTHEAST DIRECTION AND DIPS AT AN ANGLE OF 50DEG TO THE SOUTHEAST BY EAST.

THE FOOTWALL CONSISTS OF A 9 INCH QUARTZ VEIN UNDERLAIN BY A 10 INCH BAND OF QUARTZ WITH PYRITE STRINGERS AND IN TURN UNDERLAIN BY A BAND OF GABBRO. THE HANGINGWALL CONSISTED OF A 4 FOOT 6 INCH BED OF QUARTZITE WITH QUARTZ STRINGERS."

AR 11K\07A 13-Q-36(01) ;" MINOR CHALCOPYRITE- PYRITE MINERALIZATION WAS LOCATED IN A STREAM VALLEY IN DIORITE. IT EXTENDS FROM THE RHYOLITE CONTACT TO WHERE THE DIORITE IS LOST IN OVERBURDEN, A DISTANCE OF ABOUT 2000 FEET. ASSAYS OF CHIP SAMPLES RAN 0.12% CU AND 0.04% MOS2 OVER 15 FEET. THE CHALCOPYRITE OCCURS AS FILMS, CLUSTERS AND INDIVIDUAL CRYSTALS ALONG JOINT FRACTURE PLANES IN THE DIORITE.

THERE IS AS YET NO RECOGNIZED PREFERED

ORIENTATION OF THESE MINERALIZED SURFACES. THE CHALCOPYRITE MAY OR MAY NOT BE ASSOCIATED WITH QUARTZ STRINGERS. ONE ZONE OF QUARTZ STRINGERS. 2.5 FEET WIDE AND STRIKING 280 DEG DIPPING 80S TO 80N WAS LOCATED. CHALCOPYRITE ALSO OCCURS FINELY. DISSEMINATED IN DIORITE. IT HAS A DISTINCT ASSOCIATION WITH CHLORITE IN THIS CASE ALTHOUGH IT IS ALSO FOUND INTERSTITAL WITH THE FELDSPAR. THERE IS A DIRECT RELATIONSHIP OF RED FELDSPAR, BELEIVED TO BE DUE TO POTASSIUM ENRICHMENT, AND CHALCOPYRITE CONTENT.

MOLYBDENITE WAS OBSERVED WITH QUARTZ STRINGERS AND VEINS. IT OCCURS AS FINE GRAINED CLUSTERS ALONG THE STRINGER AND VEIN CONTACTS AND PENETRATES INTO THE DIORITE FOR A DISTANCE NO GREATER THAN 1\2". "

THE MINERALIZATION IS REPORTED TO BE A PORPHRY COPPER TYPE OCCURRENCE (13-Q-36(02) A SOIL GEOCHEMICAL ANOMALY FOR CU AND MO, 1100 METRES BY 1200 METRES WAS LOCATED ALONG THE MURRAY BROOK DRAINAGE SYSTEM (13-Q-36(02)). SEVERAL HOLES DRILLED IN THE GRANODIORITE HIT SPORADIC CU-MO MINERALIZATION BUT NOT OF ECONOMIC GRADE. HYDROTHERMAL ALTERATION OF THE DIORITIC HOST ROCK IS LIMITED TO SAUSSIRITIZTION OF THE FELDSPARS FOR FIVE TO TEN MM ON EITHER SIDE OF THE JOINT PLANES IN THE FELDSPAR (13-Q-36(03)) CHLORITIZATION OF FERROMAGNESIUM MINERALS SUCH AS HORNBLENDE OR BIOTITE IS MORE PERVASIVE.(13-Q-36(03)

FIELD DESCRIPTION :

JULY,1990

THE MAIN SULPHIDE SHOWING IS LOCATED AT A DISTANCE OF 1630 METRES FROM THE END OF THE ROAD. THE VEIN CAN ONLY BE SEEN IN THE BED OF THE BROOK. THE MINERALIZATION CONSISTS PRIMARILY OF PYRITE WITH SOME CHALCOPYRITE AND MINOR AMOUNTS OF MOLYBDENITE IN QUARTZ VEINS CUTTING A RED GRANITIC ROCK. THE QUARTZ VEINS APPEAR AS 2-3CM WIDE VEINS WHICH SWELL INTO PODS UP TO 30CM BY 30CM. THE MINERALIZATION IS MASSIVE IN THE PODS. A LATE STAGE BLACK DIABASE DYKE CUTS THE GRANITIC ROCK AND APPEARS TO TRUNCATE THE QUARTZ VEINS. THE DYKE STRIKES AT 252DEG AND DIPS 80DEG NW.

A JUNCTION OF THE BROOK IS FOUND AT A DISTANCE OF 1908 METRES FROM THE FIELD. A FLAG AT THIS POINT NOTES THAT A DRILL HOLE IS LOCATED 20M NW. FROM 1630 M TO 1908 M MINOR SPORADIC QUARTZ VEINS WERE NOTED ALONG THE BROOK. THE QUARTZ VEINS ARE FOUND IN RED GRANITIC ROCK AND CONTAIN MINOR AMOUNTS OF VISIBLE CHALCOPYRITE AND PYRITE.

AT A DISTANCE OF 1271M FROM THE FIELD A CONTACT WAS NOTED BETWEEN A PINK GRANITIC ROCK AN A BLACK VOLCANIC ROCK.(BASALT?)

SAMPLES
K07-33(01) ; SELECT SAMPLE MASSIVE SULPHIDE FROM THE MAIN SHOWING

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\07 ST ANNS, 1:50,000

GSC OF 1594, GEOLOGY, S.M.BARR, R.P RAESIDE AND R.A. JAMIESON, 1:50,000, 1987

BIBLIOGRAPHY :

NSDME AR11K\07A 13-Q-36(01)-(04) COPPER, PRICE POINT

NSDME AR11K\07A 21-Q-15(02) GOLD, ST ANNS MOUNTAIN

NSDME AR 11K\07A 25-Q-15(01) IRON, ST ANNS

NSDME AR 84-067 GOLD, MUSKRAT BROOK

MACDONALD, A.S. AND S.M. BARR ; GEOLOGY AND AGE OF POLYMETALLIC MINERAL OCCURRENCES IN VOLCANIC AND GRANITOID ROCKS. ST ANNS AREA, CAPE BRETON, GSC PAPER 85-1B, P117-124, 1985

BARR, S.M, G.A. O'REILLY AND A.M. BEIRNE, GEOLOGY AND GEOCHEMISTRY OF SELECTED GRANITOID PLUTONS OF CAPE BRETON ISLAND, NSDME PAPER 82-1, P25-33, 1982

REMARKS :

VERIFICATION :

THE OCCURRENCE IS WELL DESCRIBED IN THE LITERATURE AND CONFIRMED IN A FIELD CHECK BY NSDME.

ASSAY DATA

NSDME AR 25-Q-15(01)
" I TOOK A REPRESENTATIVE SAMPLE OF THE ORE FROM THE LEAD AND HAD SOME ANALYSED BY MR. A.D. MACALLUM BSC. ANALYTICAL CHEMIST, HALIFAX, WHO MADE THE FOLLOWING DETERMINATIONS :

SULPHUR 42.28%
GOLD TRACE

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NSDME 1990
BONDAR-CLEGG  AU+33
SAMPLE NUMBER          K07-33(01)
ELEMENT  UNIT
NA       PCT           <0.05
```

SC	PPM	2.1
CR	PPM	370
FE	PCT	2.6
CO	PPM	<10
NI	PPM	<20
ZN	PPM	<200
AS	PPM	10
SE	PPM	<10
BR	PPM	2
RB	PPM	47
ZR	PPM	<500
MO	PPM	810
AG	PPM	<5
CD	PPM	<10
SN	PPM	<200
SB	PPM	7.4
TE	PPM	<20
CS	PPM	1
BA	PPM	<100
LA	PPM	27
CE	PPM	62
SM	PPM	7.3
EU	PPM	<2
TB	PPM	2
YB	PPM	6
LU	PPM	<0.5
HF	PPM	3
TA	PPM	<1
W	PPM	<2
IR	PPM	<100
AU	PPB	15
TH	PPM	6.7
U	PPM	20.0
WT	g	12.70

BONDAR-CLEGG FIRE ASSAY

SAMPLE NUMBER K07-33(01)

ELEMENT	UNITS	
AU	PPB	22

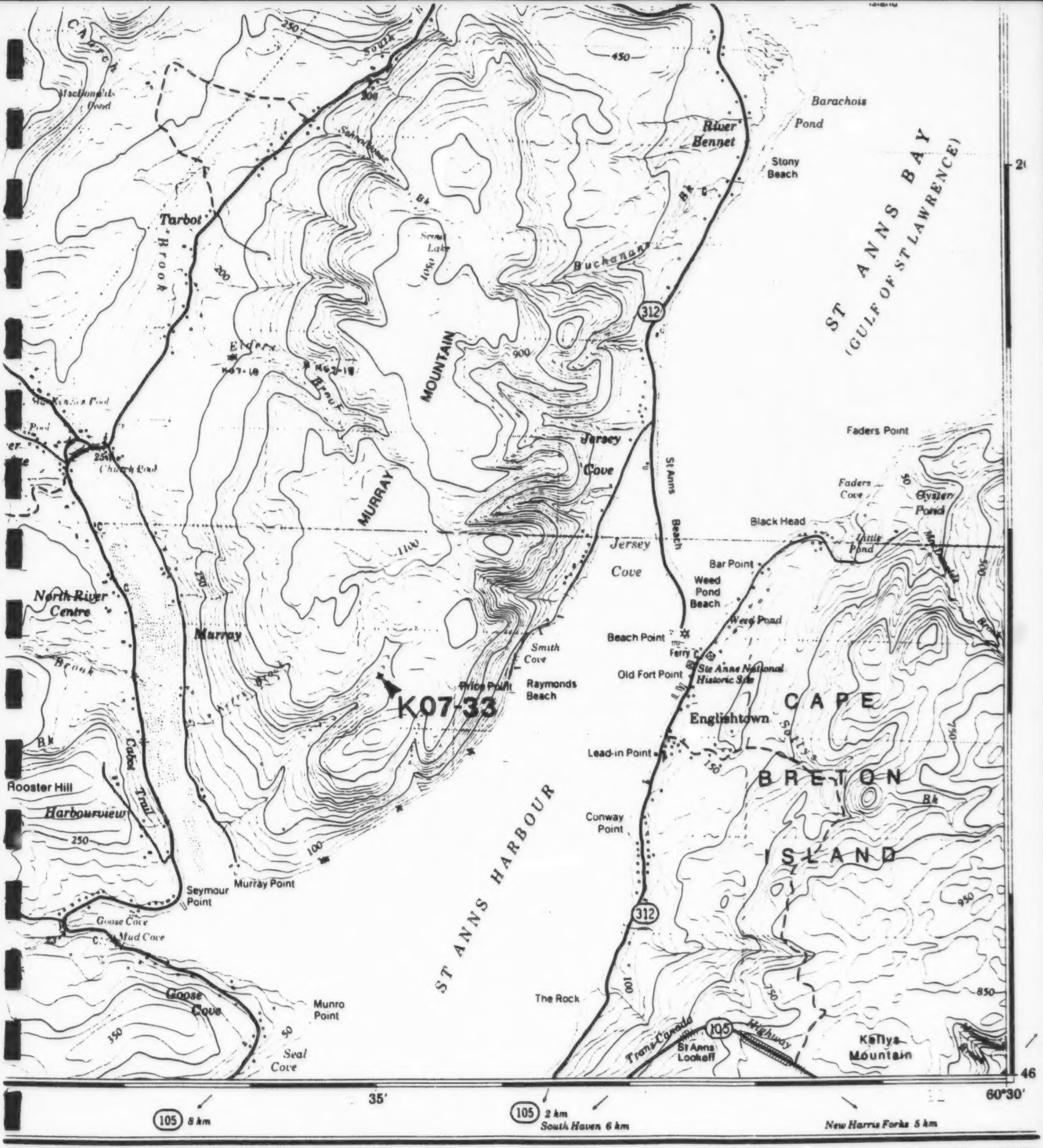
BONDAR-CLEGG ATOMIC ABSORPTION

ELEMENT	CU	ZN	AG	PB	BI
UNITS	PPM	PPM	PPM	PPM	PPM
SAMPLE					
K07-33(01)	968	59	0.7	24	<1

SURVEYS PERFORMED

GEOLOGY.IP. SOIL AND STREAM SEDIMENT GEOCHEMICAL AND DRILLING

COMPILED BY :GARTH DEMONT, MAY,1989
UPDATED BY :GARTH DEMONT, NOV.,1990
FIELD CHECKED BY :G.DEMONT AND C.WILLIAMS, JULY, 1990


K07-33
K07-18
K07-19
St Anns Bay
(Gulf of St Lawrence)
St Anns Harbour
Cape Breton Island
Murray Mountain
Barachois Pond
River Bennet
Stony Beach
Buchanans Bk
Tarbot
Tarbot Brook
Scots Lake
Elders Brook
Jersey Cove
St Anns Beach
Faders Point
Faders Cove
Oyster Pond
Little Pond
Black Head
Bar Point
Weed Pond Beach
Weed Pond
Beach Point
Ferry
Ste Anne National Historic Site
Old Fort Point
Smith Cove
Price Point
Raymonds Beach
Englishtown
Lead-in Point
Conway Point
The Rock
Murray
North River Centre
Church Pond
Cabot Trail
Rooster Hill
Harbourview
Seymour Point
Murray Point
Goose Cove
Mud Cove
Munro Point
Seal Cove
Macdonalds Pond
Trans Canada Highway
St Anns Lookoff
Kellys Mountain
312
105
35'
60°30'
46
105 8 km
105 2 km
South Haven 6 km
New Harris Forks 5 km
250
450
200
900
1050
1100
150
100
50
350
750
850
950
500

r le lieu et l'altitude exacte des
es géodésiques. Direction des

DES ALTITUDES

250 300 Mètres

900 1000 Pieds

E 50 PIEDS

ds

ord-américain, 1927

rcator

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGR
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOU
Mise à jour à l'aide de photographies aériennes prises en 1978. Vér
des ouvrages en 1979. Publiée en 1981.

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Ministère de l'Énergie, des Mines et des Ressources.

METALLIC MINERALS DATABASE **OCCURRENCE NUMBER** :K07-35

OCCURRENCE NAME : MURRAY POINT

LOCATION

COUNTY : VICTORIA **CLAIM MAP** :11K\07A **TRACT** : 20 AND 21
CLAIM : G AND N

NORTHING : 5126660 AND 5127200 **EASTING** : 685740 AND 686470
ZONE : 20

DESCRIPTIVE LOCATION : TAKE THE MURRAY POINT ROAD OFF THE CABOT TRAIL, OPPOSITE THE CHURCH. DRIVE TO THE END OF THIS ROAD AT MURRAY POINT, PAST THE OLD CONCRETE BUILDINGS. FROM THIS POINT PROCEED ALONG THE SHORE EAST FOR APPROXIMATELY 800 METRES TO A CONTACT BETWEEN A REDDISH GRANITIC ROCK AND A GREENISH SHEARED VOLCANIC ROCK. ONE HUNDRED AND THREE METRES EAST OF THIS CONTACT, AN ALTERED ZONE CAN BE SEEN IN THE GRANITIC ROCKS. THIS ZONE EXTENDS FOR 25METRES EAST ALONG THE SHORE. AT A DISTANCE OF 1015M EAST OF THE CONTACT, A SECOND MAJOR ALTERATION ZONE IN THE GRANITIC ROCKS CAN BE SEEN ON THE BEACH. CALCITE-QUARTZ VEINS IN VOLCANIC ROCKS (SIMILAR TO PRICE POINT) CAN BE SEEN CUTTING THE ALTERATION ZONE IN THE CLIFF FACE. THE TRAVERSE ENDED AT A BROOK LOCATED 1240 METRES EAST OF THE CONTACT OR APPROXIMATELY 2040 METRES EAST OF THE END OF THE ROAD AT MURRAY POINT. (BEWARE OF THE TIDE SCHEDULE AS THE WATER COMES UP AGAINST THE CLIFFS IN SEVERAL PLACES)

SUMMARY DESCRIPTION

MINERALIZATION : PYRITE AND GOLD? **COMMODITY** : FE AND AU?

STRATIGRAPHIC UNIT : ST.ANNS LEUCOGRANITE **AGE** : HADRYNIAN

HOST ROCK : LEUCOGRANITE

STATUS : THE MINERALIZATION CAN BE SEEN IN OUTCROP ALONG THE BEACH.

GEOLOGICAL ENVIRONMENT :

MACDONALD AND BARR 1985:" SULPHIDE SHOWINGS IN THE ST ANNS AREA INCLUDE POLYMETALLIC QUARTZ-CALCITE VEINS AND BARREN PYRITIC OCCURRENCES IN BOTH GRANITOID AND OLDER VOLCANIC ROCKS. THE VOLCANIC ROCKS CONSIST OF INTERMEDIATE LITHIC-CRYSTAL TUFFS AND FLOWS OF CALC-ALKALIC AFFINITY WHICH ARE PROBABLY LATE HADRYNIAN IN AGE AS THEY HAVE BEEN INTRUDED BY A LATE HADRYNIAN-CAMBRIAN GRANITOID SUITE INCLUDING GRANITE, GRANODIORITE, LEUCOGRANITE, AND QUARTZ MONZODIORITE. CU-MO-AU BEARING VEINS ARE HOSTED MAINLY BY THE GRANITOID ROCKS AND RARER CU-ZN-PB-AG VEINS BY THE VOLCANIC ROCKS, BUT BOTH VEIN TYPES EXHIBIT SIMILAR ORIENTATIONS AND MORPHOLOGICAL AND TEXTURAL FEATURES, SUGGESTING A COMMON ORIGIN.

VOLCANIC ROCKS, HEREIN REFERRED TO AS THE PRICE POINT UNIT, FLANK AND TRANSECT THE GRANITOID ROCKS OF MURRAY MOUNTAIN. ALTHOUGH MOST CONTACTS ARE FAULTS, INTRUSIVE CONTACTS ARE EXPOSED LOCALLY WITH THE INDIAN BROOK GRANODIORITE NEAR WHERE THE CABOT TRAIL CROSSES THE BARACHOIS RIVER AND WITH THE ST.ANNS LEUCOGRANITE NEAR PRICE POINT. A VARIETY OF GRANITOID DYKES OCCUR ALSO IN THE VOLCANIC ROCKS.

THE VOLCANIC ROCKS ARE ESSENTIALLY INTERMEDIATE IN BULK COMPOSITION AND CONSIST MAINLY OF CRYSTAL AND LITHIC-CRYSTAL TUFFS TOGEATHER WITH LESS ABUNDANT ANDESITIC-DACITIC FLOWS.THE ONLY MAFIC ROCKS PRESENT APPEAR TO BE DYKES OF UNCERTAIN AGE BUT PERHAPS RELATED TO THE VOLCANIC PACKAGE. NO SEDIMENTARY ROCKS WERE OBSERVED IN THE SEQUENCE.

GRANITOID ROCKS:

GRANITOID ROCKS OF THE AREA ARE DIVIDED INTO SIX MAIN UNITS, INTRUDED BY DYKES OF DIORITE, QUARTZ-FELDSPAR PORPHRY AND APLITE. THE LARGEST UNIT IS THE INDIAN BROOK GRANODIORITE, COMPOSED OF BIOTITE-HORNBLENDE GRANODIORITE GRADATIONAL TO GRANITE, WHICH EXTENDS TO THE NORTH OF THE PRESENT MAP AREA. TOWARDS ITS WESTERN MARGIN, WHERE IT HAS BEEN INTRUDED A BELT OF GNEISSIC ROCKS, IT CONTAINS INCREASINGLY ABUNDANT STRONGLY ALIGHNED XENOLITHS OF THE GNEISSES. BODIES OF BIOTITE GRANITE WHICH OCCUR WITHIN THE INDIAN BROOK PLUTON IN THE WESTERN PART OF THE MAP AREA ARE INFERRED TO BE PART OF THE BIRCH PLAIN GRANITE, A MAJOR PLUTON TO THE NORTH WHICH APPEARS TO HAVE BEEN INTRUDED BY THE INDIAN BROOK GRANODIORITE.

TWO SMALL INTRUSIONS IN THE MURRAY MOUNTAIN AREA ARE CONSIDERED TO BE RELATED TO THE INDIAN BROOK GRANODIORITE. ALTHOUGH LESS MAFIC THAN MUCH OF THE GRANODIORITE, THE KERRS BROOK

HORNBLENDE-BIOTITE GRANITE IS CONSIDERED TO BE A VARIANT OF THE INDIAN BROOK UNIT BECAUSE OF THE PRESENCE OF AMPHIBOLE, NOT A FEATURE OF THE BIRCH PLAIN GRANITE. THE MURRAY BROOK GRANODIORITE IS PETROGRAPHICALLY SIMILAR TO THE INDIAN BROOK UNIT BUT IS WIDELY AFFECTED BY ALTERATION, VEINING, AND MINERALIZATION.

THE DISTINCTIVE PINK TO RED ST.ANNS LEUCOGRANITE, WITH ASSOCIATED APLITE, OCCURS IN THREE SEPERATE BODIES, INTRUDING INDIAN BROOK GRANODIORITE, KERRS BROOK GRANITE, AND MURRAY BROOK GRANODIORITE. FARTHER TO THE NORTH AND EAST, THE CENTRAL PART OF THE MAP AREA IS OCCUPIED BY THE MURRAY MOUNTAIN QUARTZ MONZODIORITE, A NARROW BODY, ELONGATE NORTH-SOUTH, OF INHOMOGENOUS FINE GRAINED PORPHYRITIC TO MEDIUM GRAINED SUBPORPHYRITIC QUARTZ MONZODIORITE. THIS UNIT IS INFERRED TO BE THE YOUNGEST OF THE MAIN INTRUSIONS, AS IT APPARENTLY INTRUDES THE INDIAN BROOK GRANODIORITE, AND QUARTZ MONZODIORITE DYKES ARE ALSO PRESENT IN BOTH THE MURRAY BROOK GRANODIORITE AND THE ST.ANNS LEUCOGRANITE."

THE EXCERPTS ARE TAKEN FROM THE REPORT BY A.S MACDONALD AND S.M. BARR(GSC PAPER 85-1B)

REFERENCE DESCRIPTION :

MACDONALD AND BARR : " VEIN AND FRACTURE CONTROLLED ALTERATION USUALLY FORMS BLEACHED GREY HALOS, 1-5CM WIDE, ADJACENT TO SOME QUARTZ-CALCITE VEINS AND RELATED "DRY" FRACTURES. RARELY THE HALOS REACH 20CM IN WIDTH. THE BEST DEVELOPED ARE FOUND WITHIN THE ST.ANNS LEUCOGRANITE IN AN AREA 0.5-1.0KM NORTHEAST OF MURRAY POINT, WHERE SEVERAL INTERESTING SETS OF CLOSELY SPACED VEINS AND FRACTURES WITH ASSOCIATED HALOS CREATE NEARLY PERVASIVE PATCHWORKS OF ALTERATION. THE ALTERED ROCK CONSISTS OF QUARTZ, CLAY MINERALS, SERICITE, CALCITE AND PYRITE."

FIELD DESCRIPTION :

NSDME 1990 :

WE TRAVERSED ALONG THE BEACH FROM MURRAY POINT. A SMALL BROOK ENTERS THE BAY AT A DISTANCE OF APPROXIMATELY 2KM FROM THE OLD PIERS AT MURRAY POINT. AT A DISTANCE OF 1240M WEST OF THE BROOK, A CONTACT BETWEEN A SHEARED VOLCANIC ROCK (BASALT?) AND AN ALTERED RED GRANITIC ROCK CAN BE SEEN IN THE CLIFF. THE CONTACT APPEARS TO BE FAULTED IN PART AND IN OTHER PLACES INTRUSIVE. AT A DISTANCE OF 103M EAST OF THE CONTACT, A HIGHLY ALTERED ZONE CAN BE SEEN IN THE GRANITIC ROCKS. THIS ZONE EXTENDS FOR 25 METRES ALONG THE CLIFFS. THE RED GRANITIC ROCK IS BLEACHED TO A GREYISH WHITE, WITH THE INTRODUCTION OF SERICITE AND CLAY MINERALS?. PYRITE IS FOUND ALONG FRACTURES. A MINOR GOSSANIFEROUS ZONE IS

LOCATED NEAR THE MIDDLE OF THE ALTERED AREA. A MAFIC DYKE CUTS THE ZONE AT ONE POINT. AT THE EAST END THE RED GRANITIC ROCK IS FULL OF A STOCKWORK TYPE SYSTEM OF QUARTZ VEINS.

A SECOND ALTERATION ZONE IN THE GRANITIC ROCKS WAS NOTED AT A DISTANCE OF 1015M EAST OF THE BASALT GRANITE CONTACT. THIS ZONE EXTENDED FOR 20 METRES ALONG THE COAST. AT THE EAST END OF THIS ZONE. A QUARTZ CALCITE VEIN IN A VOLCANIC ROCK (SIMILAR TO PRICE POINT) WAS NOTED IN THE CLIFF ABOVE THE BEACH. (SEE PHOTO)

SAMPLES:
K07-01(G1) GRANITE AND BASALT FROM THE CONTACT

K07-01(G2) GRAB SAMPLE FROM WEST END OF THE FIRST ALTERATION ZONE. BLEACHED GRANITIC ROCK

K07-01(G3) GRAB SAMPLE FROM THE EAST END OF THE FIRST ALTERATION ZONE. A MODERATE AMOUNT OF SULPHIDE IS FOUND IN THIS SAMPLE. BLEACHED GRANITIC ROCK.

K07-01(G4) GRAB SAMPLE FROM THE SECOND ALTERATION ZONE INCLUDING SOME OF THE CALCITE QUARTZ VEIN. THIS SAMPLE IS A MIXTURE OF GRANITIC AND VOLCANIC ROCK.

REFERENCE INFORMATION

MAP REFERENCES :

NTS 11K\07 ST.ANNS. 1:50,000

GSC OF 1594. GEOLOGY. S.M. BARR. R.P RAESIDE AND R.A. JAMIESON. 1:50,000, 1987

BIBLIOGRAPHY :

MACDONALD. A.S. AND S.M. BARR : GEOLOGY AND AGE OF POLYMETALLIC MINERAL OCCURRENCES IN VOLCANIC AND GRANITOID ROCKS. ST.ANNS AREA. CAPE BRETON. GSC PAPER 85-1B. P117-124. 1985

BARR.S.M. G.A. O'REILLY AND A.M.BEIRNE. GEOLOGY AND GEOCHEMISTRY OF SELECTED GRANITOID PLUTONS OF CAPE BRETON ISLAND. NSDME PAPER 82-1. P25-33. 1982

NSDME AR 84-067. GOLD. ST ANNS

REMARKS :

THIS OCCURRENCE CLOSELY RESEMBLES THE QUARTZ VEINING NOTED ON ELDERS BROOK. THE GOLD VALUES ARE TIED TO PYRITE CONCENTRATION.

VERIFICATION :

THE OCCURRENCE WAS WELL DESCRIBED IN THE LITERATURE AND CONFIRMED BY AN NSDME FIELD CHECK IN 1990.

ASSAY DATA

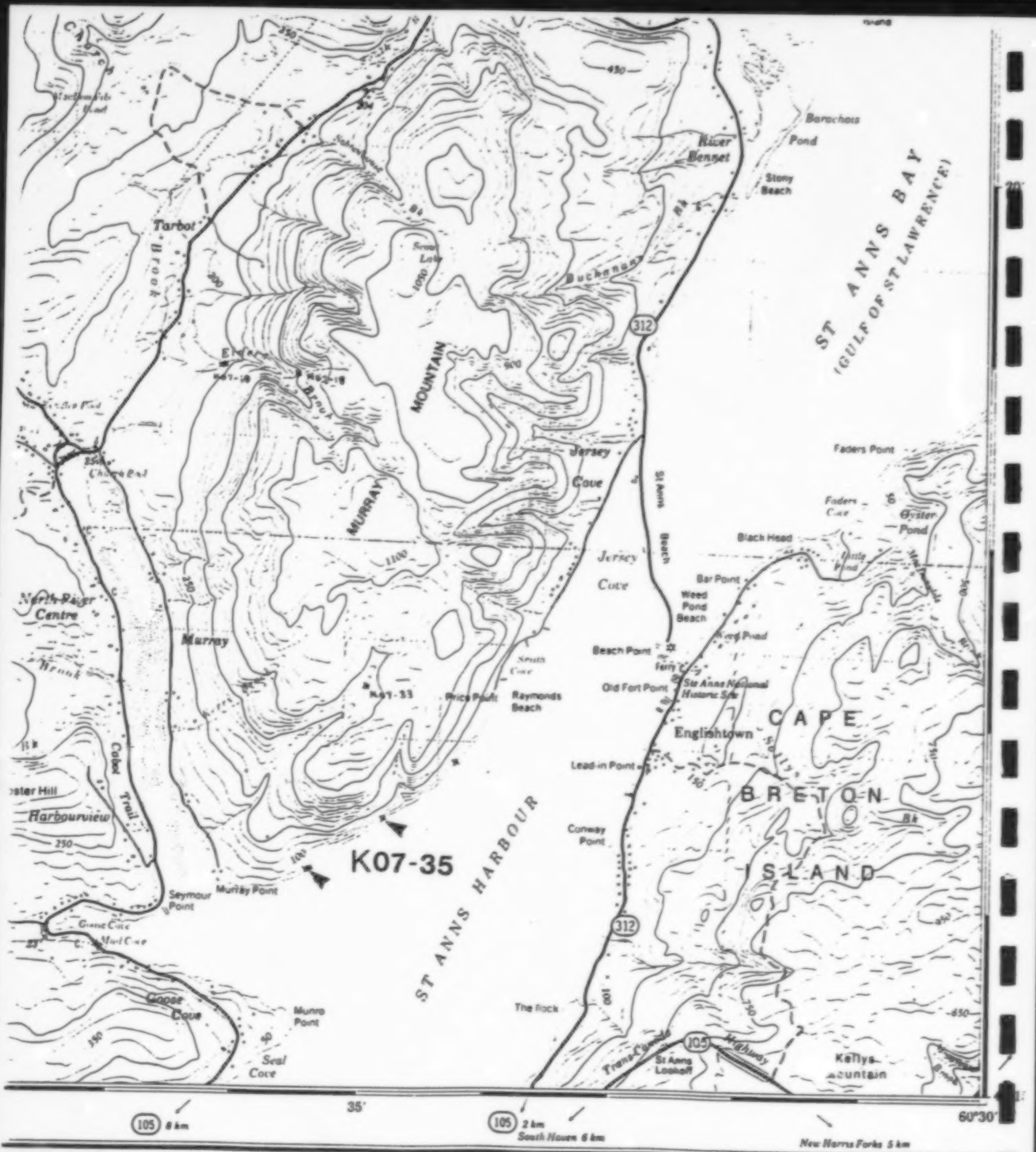
NSDME 1990
BONDAR-CLEGG AU+33

SAMPLE NUMBER		K07-01(G2)	k07-01(G3)	K07-01(G4)
ELEMENT	UNITS			
NA	PCT	0.08	<0.05	0.92
SC	PPM	5.0	1.1	4.7
CR	PPM	290	460	240
FE	PCT	0.9	1.9	2.7
CO	PPM	<10	<10	38
NI	PPM	<20	<20	<20
ZN	PPM	<200	<200	<200
AS	PPM	1	8	9
SE	PPM	<10	<10	<10
BR	PPM	<1	<1	<1
RB	PPM	120	62	130
ZR	PPM	<500	<500	<500
MO	PPM	4	92	6
AG	PPM	<5	<5	<5
CD	PPM	<10	<10	<10
SN	PPM	<200	<200	<200
SB	PPM	0.8	14.0	1.1
TE	PPM	<20	<20	<20
CS	PPM	1	10	2
BA	PPM	300	<100	690
LA	PPM	25	9	27
CE	PPM	78	25	86
SM	PPM	7.0	1.4	10.0
EU	PPM	<2	<2	<2
TB	PPM	1	<1	2
YB	PPM	<5	<5	<5
LU	PPM	<0.5	<0.5	<0.5
HF	PPM	5	<2	7
TA	PPM	1	<1	2
W	PPM	2	<2	<2
IR	PPB	<100	<100	<100
AU	PPB	9	180	13
TH	PPM	17.0	4.7	20.0
U	PPM	3.2	25.0	4.5
WT	g	11.43	12.19	13.65

SURVEYS PERFORMED

GEOLOGY. LITHOGEOCHEMICAL

COMPILED BY :GARTH DEMONT, NOV, 1990
UPDATED BY :
FIELD CHECKED BY :G.DEMONT AND C.WILLIAMS, AUG,1990


Tarbot
Brook
Barachois
Pond
River
Bennet
Stony
Beach
ST ANNS BAY
(GULF OF ST LAWRENCE)
Buchanan
312
MOUNTAIN
MURRAY
Elders Brook
K07-16
K07-18
Jersey
Cove
St Anns Beach
Faders Point
Faders Cove
Oyster
Pond
Black Head
Little Pond
Bar Point
Weed Pond Beach
Weed Pond
North River Centre
Murray
Beach Point
Ferry Cove
Old Fort Point
St Anns National Historic Site
South Cove
Price Point
Raymonds Beach
K07-33
CAPE
BRETON
ISLAND
Englishtown
Lead-in Point
Cabot Trail
Foster Hill
Harbourview
250
K07-35
ST ANNS HARBOUR
Conway Point
Seymour Point
Murray Point
Goose Cove
Mud Cove
312
Munro Point
The Rock
Seal Cove
Trans-Canada Highway
105
St Anns Lookoff
Kellys Mountain
35'
60°30'
105 8 km
105 2 km
South Haven 6 km
New Harris Forks 5 km

...ru et l'altitude exacte des
géodésiques. Direction des

ES ALTITUDES

0 300 Metres
900 1000 Pieds

PIEDS

américain 1927
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